Advancing psychological therapies research in Northern Ireland

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Ministerial Foreword

I am pleased to commend to you this Research Review that is one of a series focussing on priorities identified through the Action Plan that supports the Executive's response to the Bamford Review Recommendations. The Bamford Action Plan (2009-2011) is driving much-needed change in how we care for people affected by mental health or intellectual disabilities. One in six of our population has a mental health need at any one time, and it is estimated that between 1-2% of our population, that is around 24,000 people, have an intellectual disability. In addition, there are many others who have or will develop dementia in the future.

Our highly committed staff who deliver health and social care services have expertise and skills that must be supported by the best up-to-date knowledge. Through research, new knowledge is created. But it is now recognised that, for a variety of reasons, essential knowledge does not always reach the people who most need to use it. The knowledge can vary from better understanding of the causes of poor mental health or intellectual disabilities through to evidence on which services bring about the greatest improvements to the lives of people or their carers. To bring together this knowledge we have commissioned five Research Reviews.

Each Review was written by a team of experts in academia, clinical services and care who have collected the most up-to-date evidence from research done locally or globally. All of the review teams were based in Northern Ireland so we know that the Reviews are relevant to our local situation. The quality of each Review has also been assured through input from experts who are based in other parts of the UK or internationally.

The priority areas addressed by the Reviews are:

- Children & Young People including early interventions, the needs of looked-after children and the development of resilience;
- Patient Outcomes including the measurement of recovery and the capture of patient feedback;
- Intellectual Disability including the management of challenging behaviours;
- Psychological Therapies including how to embed these in services for children and adults across the lifespan and including those with intellectual disability and severe mental health problems;
- Primary Care including aspects important to the prevention, recognition and management of mental health in the community.

As well as providing accessible knowledge and information, each Review has highlighted gaps in our knowledge. We will commission new research projects aiming to fill those gaps.

My final acknowledgement is of contributions made by local people, patients and their carers who assisted in the selection of the priority areas covered by the Reviews and provided extremely helpful feedback to the review teams. Some of those people also serve through their membership of our Bamford Monitoring Group.

I dedicate these Reviews to the people who are affected by mental health or intellectual disabilities. I urge our health and social care staff, education professionals, members of voluntary organisations and others to use these Reviews so that all members of our community may receive the best possible support to live their lives with dignity.

Edwin Poots MLA

Minister for Health, Social Services and Public Safety

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Executive Summary

Mental health difficulties exact an enormous personal, social and economic cost and as such, are a priority issue for public policy. The strategy *No Health without Mental Health* (DOH, 2011) pledges significant investment and re-organisation in mental health services in general and the "talking therapies" in particular, and to create "parity of esteem between mental and physical health services". Such unprecedented recognition of the importance of psychological therapies will serve to improve not just mental health and well-being, but other multifarious indicators of the health of the nation including life expectancy, educational achievement, employability and productivity

Within Northern Ireland, the Bamford Review and Action Plan (DHSSPS, 2007, 2009) provided the local strategic imperative for the development of psychological therapy services. The subsequent launch of the Strategy for the Development of Psychological Therapy Services (2010) and the Mental Health and Well-being Strategy (2011) operationalise the commitment to mental health and provide a direction in which to travel.

The current paper has been commissioned as part of the Bamford Implementation Rapid Review Scheme and will contribute to the identification of a needs-led research programme being developed to support the implementation of the Bamford proposals.

The paper has adopted a 2-strand process in identifying the psychological therapies evidence base in the context of Northern Ireland policy and services. Firstly the paper outlines a review of existing national and international literature regarding

psychological therapies. This includes (i) a summary of NICE Guidelines practice and research recommendations; (ii) a summary of the Critical Review of Psychotherapy Research – What works for whom? commissioned by the Department of Health and completed by Roth and Fonagy and (iii) a current rapid review of the evidence base for psychological therapies for adults, older adults, children and adolescents, and people with learning disabilities.

Secondly, the paper outlines the findings of a regional survey which explored the current provision of psychological therapies and research programmes being delivered across statutory and third sector services in Northern Ireland. The survey identified that Northern Ireland has a fertile base of research which is embedded in collaborating partnerships between clinical services and the universities/research institutes. This research tends to centre around two overarching themes – (1) Psychological interventions in chronic illness and disability in child and adulthood (including learning disability and neurological presentations); and (2) Trauma and mental illness.

When evidence from the NICE Guidelines, Rapid Reviews and the survey of local research and practice are combined, a priority emerges regarding the development of practice based research. Such research should focus upon psychological therapies outcomes and would inform the development of an outcome measurement framework for mental health services. The paper further proposes a 4 factor model which could be used to inform commissioning of psychological therapies research. At the centre of this model it is proposed to develop a Psychological Therapies Research Centre which could support the existing Northern Ireland research infrastructure and co-ordinate and collaborate upon a targeted research strategy.

1. Overview and Scope

Aims and objectives: In order to refine the focus for needs led research calls related to the Bamford review and action plan (DHSSPS, 2007, 2009); the present paper presents a rapid review of research into one key area - psychological therapies, with particular reference to the Northern Ireland context, policies and psychological services. Specific objectives include:

1. Identification of the evidence base for specific psychological therapies as they pertain to adult mental health (including older adults), child, learning disability, older adults and co-morbid physical health presentations by a rapid review of systematic reviews and meta analyses,
2. Consideration of current research objectives and foci within the psychological therapies literature,
3. Sampling of psychological therapies – practice and research - within the statutory, third sector and higher education arenas of Northern Ireland in the context of the evidence base as outlined above and
4. Reflective consideration of future priorities for psychological therapies research in the light of outcomes of the above.

Methodology: The evidence base for psychological therapies is differential. Various therapies have an evidence base but typically with respect to specific clinical presentations and populations. Thus behavioural exposure therapy has an evidence base for phobias but has little to offer bipolar depression. Moreover, the emergent research base in psychological therapies is not uniform in terms of methodological quality and stage of development. Thus whilst randomised controlled trials are now

prevalent in research into therapies in adult mental health there is almost a complete absence of such trials investigating interventions in learning disability.

For these reasons the inclusion / exclusion criteria of the rapid reviews contained in this paper vary. All employ systematic search procedures of reviews published over the past decade. However, inclusion / exclusion criteria, and the quality checklist for second level decision making about whether or not to include a review paper in this review, vary as outlined in section 4.

This review is primarily intended to inform research priorities for psychological therapies in Northern Ireland. In addition to the international literature reviews indicated above, a “grey” review of practice and research related to psychological therapies in Northern Ireland was conducted. This was primarily by means of the regional survey summarised in Appendix 1. This was forwarded direct to psychological therapies managers across the five HSC Trusts, to relevant schools and departments within the universities (e.g. psychology, medicine, social work, nursing), to the translational research groups and to the main voluntary and charity sector organisations in Northern Ireland who provide therapy / counselling to people with mental or physical health presentations and / or who have a related research unit. The intention here was not to exhaustively map therapies and research to specific organisations, but rather to (a) profile the nature of psychological therapies (to whom and for what presentations) being delivered in the statutory and third sector organisations of Northern Ireland in the light of our review of the evidence bases and (b) to profile regional research programmes and priorities related to psychological

therapies as highlighted by this survey but also as discerned through the rapid reviews themselves.

Overview of paper: The paper begins by highlighting the increasing importance psychological therapies are recognised as having across a wide spectrum of health presentations. The regional context and strategies are outlined together with an overview of what, and how, psychological therapies are being delivered in Northern Ireland. The individual reviews of the international evidence base for the efficacy of psychological therapies for key clinical groups and presentations follow, together with identification of research priorities and related programmes of research within Northern Ireland. Finally the authors offer a model for prioitising future needs-led research in the psychological therapies in Northern Ireland.

2. Psychological therapies – background and context

Definitions: A commonly used definition of psychological therapy is "*an interpersonal process designed to bring about modification of feelings, cognitions, attitudes and behavior which have proved troublesome to the person seeking help from a trained professional*" (Strupp, 1978). Typically derived from psychological theory and research these therapies involve an interpersonal context (often a therapeutic relationship) in which, through a variety of methods which stem from the model of therapy employed, emotions, thoughts and behaviours change in a way which reduces distress and promotes psychological well-being and coping. In practice this may involve developing new ways of communicating and relating within families (e.g. family therapy), gaining insight into and modifying dysfunctional thoughts and beliefs (e.g. cognitive-behaviour therapy), a selective use of reinforcers and environmental alteration to modify behaviour (e.g. behaviour therapy) or bringing unconscious conflicts and relational patterns into conscious awareness for processing and change (e.g. psychodynamic therapy). These examples are far from exhaustive and indeed as far back as 1986, over 400 different therapies were identified (Kazdin, 1986). The number has certainly increased today.

Although "hybrid" models are emerging (e.g. cognitive-analytic therapy), those therapies which have a knowledge base derived from psychological science arguably cluster into the five main models of behaviour, cognitive-behaviour, psychodynamic, systemic and humanistic therapy. The core features and skill components of these therapies are defined for commissioners, the public and training agencies by the national *Skills for Health* project (www.skillsforhealth.org.uk). Moreover these find further definition and accreditation

criteria in the guidelines issued by professional bodies for practitioner members (e.g. *British Psychological Society, British Association of Behavioural and Cognitive Psychotherapy, Association of Family Therapy* etc.) and some practitioners of psychological therapies (e.g. Clinical Psychologists) are also subject to statutory regulation and approval by government appointed bodies (e.g. *Health Professions Council*). Although there are undeniable issues surrounding regulation and quality assurance of the psychological therapies as delivered in the statutory (and even more commonly) voluntary sector organisations, the key point here is that psychological therapies involve training, professional standards and accreditation.

Utility for healthcare: The *National Institute for Clinical Excellence* (NICE) recommends psychological therapies as central to the treatment of a whole host of mental health presentations across the lifespan including depression, anxiety, schizophrenia, post-traumatic stress disorder, attention deficit hyperactivity disorder, self-harm and eating disorders (www.nice.org.uk). Importantly, NICE guidance on the utility of psychological therapies extends to physical health presentations such as cardiovascular disorders, pain, perinatal presentations, cancer and unexplained medical symptoms, where they are not only useful in improving adjustment and preventing secondary psychological morbidity, but in directly enhancing medical outcomes by, for example, improving adherence to treatment, pain management and motivating healthy behaviour change .

Psychological therapies have concomitantly attained a much higher priority in healthcare provision and strategy. In 2008 New Labour invested hugely in the *Improving Access to Psychological Therapies* (IAPT) initiative (www.iapt.nhs.uk).

This social experiment aimed to significantly improve access to the talking therapies (utilising NICE approved treatments) for anxiety and depression in primary care. Underpinning the initiative was the training of several thousand new "low" and "high" intensity therapists to deliver treatments on a "stepped care" basis. Essentially presentations of lower severity would be offered lower intensity interventions (guided self help, computerised CBT, behavioural activation etc.) and only stepped up to the higher intensity intervention (e.g. full CBT programmes) if this did not work, or indeed if the initial severity of their presentation indicated this as a first line treatment. A fundamental tenet of this initiative has been that these disorders compromise the educational and economic productivities of whole swathes of society and that treating these improves the employability and productivity prospects of the nation. Emergent evidence suggests some distinct success in improving access to targeted groups, achievement of recovery target rates and understanding of factors associated with same to further refine and improve performance (Gyani, Shaffran, Layard & Clark, 2011; North East Public Health Observatory, 2010) . This English initiative offers lessons for the Northern Ireland context as discussed further below.

The new Coalition Government have continued New Labour's commitment to investing in mental health services in general and the "talking therapies" in particular. Outlining the huge economic benefits in terms of improved physical health, life expectancy, educational achievement, employability and productivity, their 2011 strategy *No Health without Mental Health* (DOH, 2011) pledges significant investment and reorganisation to create "*parity of esteem between mental and physical health services*" including further expansion of the "talking therapies" programme. The latter will involve further roll-out of the *Improving Access to*

Psychological Therapies (IAPT) initiative in England, adding other NICE-approved therapies to CBT provision, improving access for older adults and developing early and stepped care interventions for other clinical groups beyond adults in primary care (i.e. children and young people, people with long-term physical conditions and medically unexplained symptoms and people with severe mental illness) – www.iapt.nhs.uk.

3. Psychological therapies in Northern Ireland

3.1 Northern Ireland – Population Context

(a) Population information

The population of Northern Ireland was calculated in 2008 to be approximately 1.73 million. This is a 5% increase from the 2001 census, with population projections estimating that the Northern Ireland population will grow to 1.9 million by 2020.

The rate of population growth is not uniform with a 9% decrease in the number of children and 12% increase in the number of pensioners recorded. As such it was noted that 14% of the population in 2008 were aged 65+ years. This figure will rise to 17% by 2020. Life expectancy for females in Northern Ireland is 78.4 years and for males 71.8 years. However life expectancy is influenced by 'social and economic inequalities in society (Marmot Review, 2010). As such, in 2008 there was a life expectancy difference of 7.2 years for males and 4.3 years for females when the 20% most deprived areas were compared to the 20% least deprived areas. Finally, life expectancy in rural areas was estimated to be higher then urban areas (5.9 years for males and 4.2 years for females). (DHSSPS, 2011).

(b) Employment

Northern Ireland has the highest percentage of working-age population not in paid employment than any other region in Great Britain and is 30% higher than the UK average. 19% of individuals receive a form of out-of-work benefit, with the highest rates recorded in Derry (29%) Strabane (29%) and Belfast (26%). 9% of the working-age population receive Disability Living Allowance (includes 3% who receive it for mental health reasons). This proportion has risen by 25% since 1998 and is more than twice the UK average. It is noted that 70% of people registered with a disability

are not in paid work. Finally it is noted that 80% of heads of households in social housing are not in work and that 22% of people who are in full-time employment are in minimum-wage jobs (Bamford, 2005; DHSSPS, 2003)

(c) Deprivation

Northern Ireland is recognised as one of the worst areas of social and economic deprivation in Western Europe. In 1997-2002 the average household income was 78% of the UK average, with 20% of the population (350,000 people) living in income poverty. This includes 25% children living in poverty and 24% homes experiencing fuel poverty. In addition to lack of disposable income, individuals experience poorer home living conditions; higher infant mortality; higher rates of teenage pregnancy and lower educational attainment.

In 2004/5 17,000 households presented as homeless, of which 6000 had dependent children (Kenway et al, 2006).

(d) Health

The Northern Ireland Health and Social Well-being Survey 2005/6 identified high levels of physical health conditions within the population (See Table 3.1). It is estimated that there are 3000 premature/avoidable deaths per year in Northern Ireland, with a disproportionate percentage of these in deprived areas.

The DHSSPS Mental Health Services Review (2003) estimated that 1 in 6 individuals (approx. 282,000 people) suffer from a mental health problem at any one time and that Northern Ireland is considered to have 25% greater mental health needs than England. Prescription rates are significantly higher than England – antidepressants 37% higher; antipsychotics 66% higher and anxiolytics 75% higher.

While there are no population prevalence studies completed in Northern Ireland, McConnell et al (2002) identified a prevalence of 12.2% for psychiatric disorder in an epidemiological study completed in the district of Derry/Londonderry.

Table 3.1 Northern Ireland Health & Social Well-Being Survey 2005/2006

Self Report	**Males**	**Females**
Long standing illness	36%	40%
- age 16-24 years	12%	14%
- age 75+ years	68%	70%
Diagnosed High BP	22%	28%
Back pain consultation	33%	38%
Heart related difficulties	17%	18%
Current smokers	25%	27%
High levels of stress	8%	11%
Possible mental health problem (high GHQ score)	16%	21%
Severe lack of social support	15%	12%
Obesity		
- obesity and/or overweight	25%	23%
- obesity or overweight – age 16 – 24 years	29%	32%
- obesity age 2 – 15 years	20%	15%
Cervical smear test uptake	-	86%
Breast screening uptake	-	84%
Participating above recommended level of physical activity	33%	28%

Table 3.2 Health and Social Care Comparative Data – May 2004

Key Performance Indicators (2001)	Northern Ireland	England	Scotland	Wales
Staffing Levels (Hospital and Community Health Services) per head of population	13.14	10.94	15.35	12.42
GP List Size	1633	1841	1409	1685
Child Protection Register	3.4per 1000	2.3 per 1000	-	3.0 per 1000
Children in Care	5.5 per 1000	5.4 per 1000	-	5.5 per 1000
Prescription Costs	25% higher than UK average	-	-	-
Cancer Survival Rates – 5 year - Lung Cancer - Breast Cancer - Prostate Cancer	 9% 78% 58%	 -	 7.5% 80% 70%	 6% 77% 61%
Self Reported General Health 'Poor Health'	16%	6%	6%	5%
Self Reported - long-standing illness - Age 65 – 74 years	 25% 47.5%	 25% 37.5%	 25% -	 30% -
Alcohol Use - Exceed recommended levels - 11-16 year olds – taken drink	 20% 56% (boys) 52% (girls)	 21% 62% (boys) 60% (girls)	 -	 -
Illegal Drug Use - Adults ever used drugs - Adults ever smoked cannabis - Age: 11 – 16 years ever used drugs	 20% 17% 25%	 36% 29% 26%	 -	 -
Cigarette Smoking	31%	28%	34%	28%
Recommended level physical activities	30%	-	32%	17%

Finally, the National Confidential Enquiry into Suicide and Homicide for people with Mental Illness identified a total of 1,865 suicides as occurring in Northern Ireland in the period 2000 – 2008. This equates with a rate of 207 per year providing a general population annual suicide rate of 13.9 per 100,000 people. During this time period

533 suicides (29% of suicide rate) were completed by individuals who had contact with Mental Health Service in the previous twelve months (including 35 in-patient suicides and 125 patient suicides within three months following discharge form hospital), and 332 suicides were committed by people under the age of 25 years.

In the same time period there were 142 homicide convictions, indicating an equivalent annual homicide rate of 10.6 per million population. Of the 142 homicides, 21 individuals were identified as current mental health patients, with 9 patient homicides (43%) occurring within three months of discharge from hospital. It was noted that no "stranger homicides" were committed by mental health service users.

(e) 'The Troubles'

Northern Ireland has experienced social, political and civil conflict since the late 1960s built upon religious/cultural tensions and social division that had existed before its onset. During this time period, the perpetration of violence varied in form and intensity and was characterised as low intensity urban guerrilla warfare (Doraghy, 2006). The violence included assassinations, bombings, street riots, searches and check-points and many communities were internally regulated by non-state sanctioned groups who used intimidation and violence to maintain control. From 1969 to 1997 there were 3,585 deaths (91% males; 37% <24 years; 53% < 29 years); approximately 10,000 bomb attacks and an estimated 40 – 50,000 people injured as a direct result of the Troubles (Bloomfield Report, 1998). Kenway et al (2006) noted that overall 7% of the population were injured and 36% had a close friend or relative injured or killed during the Troubles. O'Reilly et al (2003) identified

that 21.3% of respondents indicated that the Troubles had a lot/quite a lot of impact on their lives and 25.1% reported the Troubles had an impact on their area. 13% of people living in areas of high intensity violence reported poor health compared to 4% of people living in low violence areas (DHSSPSNI) and high levels of substance misuse have reportedly been used as coping strategies.

Since the ceasefires in 1994/95 there has been a shift in violence with a marked reduction in homicides and bombings and an increase in isolated shootings, riots and racial divisions (Dillenburger, 2008). There continues to be high levels "punishment shootings and beatings" (1506 shootings and 1737 beatings in time period 1990 – 2000 CAIN Web Service) and an increasing awareness of the transgenerational impact of the Troubles. For example Cummings et al (2010) have identified that sectarian community violence is linked to child adjustment problems and lower levels of pro-social behaviour. Finally Muldoon and Downes (2007) identified a 12% population prevalence of PTSD in Northern Ireland post-conflict and there is a growing recognition and uptake of services for people who are victims of the Troubles.

3.2 Strategic context: Consistent with the *Bamford Action Plan*, strategies for specific clinical populations (e.g. related to stroke, dementia, brain injury and autism – DHSSPS, 2007, 2009, 2010a, 2010b) and the overall ten year *Mental Health and Well-Being Strategy* (DHSSPS, 2011a), the *Department of Health, Social Services and Public Safety* (DHSSPS) has invested in a *Strategy for the Development of Psychological Therapy Services* (DHSSPS, 2010). Key amongst the conclusions and recommendations are:

- That provision of psychological therapies should be a core component of mental health and learning disability services (in addition to, or instead of, medication which has often been all that is available) and indeed that this provision should extend to other health care specialisms (e.g. physical health and long-term conditions),
- A new stepped care approach to delivering low and high intensity psychological interventions, as appropriate to the clinical presentation, should inform service development and reorganisation, and this should be consistent with the evidence base (e.g. as outlined in NICE guidance) for what therapies work for whom and as per the IAPT approach described above,
- Indicative, evidence-based, psychological therapies and interventions are highlighted for adults, children and young people and those with a learning disability along a stepped care framework (i.e. lower intensity interventions for milder and more discrete presentations and higher intensity interventions for more severe and complex presentations).

Of particular relevance to the current review, both the *Strategy for the Development of Psychological Therapy Services* (DHSSPS, 2010) and the *Mental Health and Well-Being Strategy* (DHSSPS, 2011a) recommend the development of an outcomes monitoring framework to evaluate the effectiveness of psychological therapies delivered, together with a prioritised plan for research on mental health and learning disability in the region. Given that using therapies of demonstrated efficacy does not guarantee clinical effectiveness when transposed from the research context to multifarious clinical settings and configurations, outcomes research is likely to be an

important component in an overall research plan. However, this will be further discussed in section 9 below.

Psychological therapies delivered in Northern Ireland: Returns of the regional survey regarding current provision of psychological therapies (Appendix 1) came from four of the five Trusts (psychological services) as well as a range of voluntary and charity sector organisations (see Appendix 1). Although not at all exhaustive, the findings outlined in Table 3.3 provide an insight into what psychological therapies are being utilised in Northern Ireland and with what populations, whether these are consistent with NICE standards and provides a context for informing needs led research in the psychological therapies.

Table 3.3: Psychological therapies delivered across statutory and third sector services in NI

Service Context	Therapies Delivered	
Statutory (HSC Trusts)		
Adult mental health – primary / secondary	Cognitive-behaviour Therapy Solution-Focused therapy Interpersonal therapy EMDR	Brief psychodynamic Couples therapy Schema therapy
Adult health	Cognitive-behaviour Therapy Motivational interviewing EMDR Group therapy	Adjustment therapy Psycho-education Acceptance and commitment therapy
Older adults	Systemic therapy Cognitive-behaviour therapy	Family interventions Neuropsychological consultation
Severe and enduing mental illness	Cognitive behaviour therapy Psychodynamic	Family interventions Humanistic
Child and adolescent mental health	Systemic CBT Parent training	Dyadic developmental psychotherapy

Service Context	Therapies Delivered	
	Behaviour therapy Narrative therapy	Systemic consultation Solution-focused therapy
Looked after children	Dyadic developmental psychotherapy Attachment informed parent training	Systemic consultation Milieu therapy Social skills training Narrative therapy
Paediatrics	Systemic CBT Parent training Behaviour therapy Narrative therapy	Family interventions TEACCH Psychoeducation Preventative interventions
Addictions	Cognitive behaviour therapy Relapse prevention training Solution focused therapy	Motivational interviewing Group therapy EMDR
Learning disability	Positive behaviour programming Behaviour therapy Narrative therapy Psycho-education	Systemic therapies TEACCH Cognitive behaviour therapy Parent training
Forensic	Cognitive behaviour therapy Schema therapy Brief psychodynamic	EMDR Humanistic
Neurological specialisms	Adjustment therapy Cognitive behaviour therapy Brief psychodynamic Family interventions	Neuropsychological consultation Cognitive remediation
Voluntary / Charity Sector		
Adult mental health	Therapeutic community Psychodynamic Cognitive behaviour therapy	Counselling Psychoeducation
Trauma	Cognitive behaviour therapy	
Child mental health	Humanistic Cognitive behaviour therapy Behaviour therapy	Psychodynamic Systemic
Addictions	Cognitive behaviour therapy Psychodynamic	Humanistic Systemic
Physical health	Bridges self-management	Counselling

A number of points and conclusions may be drawn:

- A wide range of psychological therapies are being delivered across clinical specialisms and populations in Northern Ireland.

- The range of therapies available appears greater in the statutory than voluntary sector.

- Therapies offered are generally consistent with the five main school of psychotherapy noted above and, as outlined in subsequent sections, are recognised therapies of demonstrated or promising efficacy.

- Returns from the statutory sector highlighted two important caveats to understanding how psychological therapies were being delivered. Firstly, respondents emphasised an "integrative" use of psychological therapies –v- a purist and proceduralised delivery of a unimodal therapy. Thus the same case presentation may require second line therapies (or indeed several therapeutic interventions) for co-morbid presentations and features, or if not responding to the primary therapy. Secondly, whilst cognitive behaviour therapy (which has arguably the greatest evidence base for efficacy – see below) appeared the most common psychological therapy across all specialisms and populations, this required adaptation and adjustment to make it relevant to, for example, children, people with a learning or neurological disability etc.

These findings suggest a wide canvas for psychological therapies research of relevance to practice in Northern Ireland. Moreover, returns suggested psychological therapies research, of both scientific and published quality, as well as practice based research, was often embedded within clinical services, across *both* the statutory and

voluntary sectors, in what appeared to be a symbiotic relationship. This context will be highlighted later in section 9.

Thus far, the policy imperatives for the development and delivery of psychological therapies in the U.K. in general, and Northern Ireland in particular, have been outlined. What psychological therapies are being delivered to which populations, and across statutory and voluntary sectors in Northern Ireland, has been profiled, together with contexts and caveats. These will represent some of the important drivers when considering needs-led research priorities for the psychological therapies. The next sections present rapid reviews of the international evidence base for the efficacy of various psychological therapies for clinical populations central to the *Bamford Action Plan* (DHSSPS, 2009) and the *Strategy for the Development of Psychological Therapy Services* (DHSSPS, 2010). This will provide an additional lens through which to view priorities for psychological therapies research in Northern Ireland.

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Section 4: Methods for the Rapid Reviews

Four rapid reviews were conducted to examine the research evidence synthesising the effectiveness of psychological therapies for: (1) adults (2) older adults (3) children and adolescents and (4) people with learning disabilities.

We aimed to include all published systematic reviews or meta-analyses that had been published since 2004. The rationale for the date limit is that research published prior to this date is likely to have been included in the Roth and Fonagy (2005) review of the effectiveness of psychological therapies.

Inclusion criteria were that the reviews were available in English; were reviews of research data (rather than theoretical reviews); had a focus on psychological therapy; aimed to examine the effectiveness of psychological therapy; and were focused on one of the populations of interest.

The populations of interest differed between the four reviews conducted (i.e. between the adult, older adult, child and learning disability reviews). For the adult and older adult reviews, the populations of interest were people with an anxiety disorder or a mood disorder or psychosis or heart disease or cancer or diabetes or pain or dementia. In the case of the older adult review, only research which focused on adults of 65 years of age or older was included. For the adult review, adults from 18-65 years old were included. For the child review, the populations of interest were people under 18 years of age with an anxiety disorder or a mood disorder or psychosis or conduct disorder or an attention deficit disorder or autism or who were self-harming. For the learning disability review, the populations of interest were

people with a learning disability with an anxiety disorder or a mood disorder or psychosis or challenging behaviour or dementia or who were self-harming.

Psychological therapy is a broad term, so a more specific definition was used to guide the search terms for the review. For the purposes of this review, psychological therapy was considered to be a therapeutic intervention that derived from one or more of the five main schools of psychotherapy: behaviour therapy, cognitive behaviour therapy, psychodynamic approaches, systemic interventions and humanistic therapy.

On the basis of these criteria, search terms were devised for use with the electronic bibliographic databases: PsychInfo, Medline and Web of Science (which includes the Science and the Social Science Citation Indices). The search terms for each database are included in Appendix 3. One set of searches was conducted for both the adult and the older adult review, as some of the electronic databases do not allow the imposition of limits based on the age of participants. Therefore, the separation of research into that relevant for adults and that relevant for older adults was conducted by hand.

Table 4.1 provides the number of 'hits' obtained from each electronic search, which is the number of articles returned by the search terms in each database. At this point, the title and abstract of each hit was assessed against the inclusion criteria. The full text was then obtained of any articles which were considered to be eligible for the review at this stage or about which a decision could not be made. Once the full text of all potentially relevant articles was obtained, they were again assessed

against the inclusion criteria and a decision made about whether each article was eligible for inclusion in the review or not (See Appendices 4 & 5). Any decisions which could not be made by the reviewers were discussed by the research team until consensus was reached. Given the time limit on the rapid review, decisions about inclusion/exclusion of each article were primarily undertaken by one reviewer only. However, a sample of articles (approximately 10%) was assessed independently by a second reviewer and no conflicting decisions were recorded.

Table 4.1: Refinement of articles included in the review

	No. of Hits	No. included after title/abstract assessment	No. included after full text assessment	No. included after quality assessment
Adult Medline	380	119	101	35
Adult Psychinfo	89	40	40	17
Adult Web of Science	271	97	36	25
Number of duplicates	72			
Hits excluding duplicates	**668**			**77**
Child Medline	340	100	89	12
Child Psychinfo	78	32	27	13
Child Web of Science	221	17	16	6
Number of duplicates	48			
Hits excluding duplicates	**591**			**31**
Learning Disability Medline	106	4	n/a	n/a
Learning Disability Psychinfo	22	2	n/a	n/a
Learning Disability Web of Science	100	6	n/a	n/a
Number of duplicates	54	2		
Hits excluding duplicates	**174**	10		

All eligible articles were assessed for quality using a modified version of the Assessment of Multiple Systematic Reviews (AMSTAR) tool (Shea et al., 2007). The AMSTAR is included in Appendix 6. For our rapid reviews, we wished to include good quality reviews only. Therefore, reviews had to score a 'yes' response on items 1-3 and items 7 and 8 to be included in the review. We felt that these items are essential components of a good quality review. After the completion of this assessment, the number of remaining review articles in each rapid review was as follows:

Adults: n = 51

Older adults: n = 26

Child: n = 31

Learning Disability: n = 10

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5.0 Rapid Review - Adult Disorders

Preface

Psychotherapy Evidence Base

In order to review the evidence base for psychological therapies for mental health disorders the current Rapid Review considered 3 primary sources of information:

1. National Institute for Health and Clinical Excellence (NICE) Clinical Practice Guidelines
2. Review of *What works for Whom?: A Critical Review of Psychotherapy Research, 2nd Edition* - Roth & Fonagy, 2005 &

   What works for whom? A Critical Review of Treatments for Children and Adolescents – Fonagy et al, 2002
3. Results of the current rapid review of the evidence base

National Institute for Health and Clinical Excellence (NICE)

The National Institute for Health and Clinical Excellence is an NHS organisation established in April 1999. NICE commission 4 external centres and 1 internal centre to produce Guidance on Public Health (e.g. the promotion of good health & prevention of ill health); Health Technologies (e.g. pharmaceuticals, interventional procedures etc) and Clinical Practice.

Clinical Practice Guidelines are derived from the best available research evidence using predetermined and systematic methods to identify and evaluate the clinical and cost-effectiveness evidence relating to a specific condition. They provide evidence-based recommendations for the treatment and care of people with specific

diseases and conditions. NICE have produced more than 100 Guidelines since it began publishing in 2001.

There are several Guidelines developed relating to mental health conditions - for example anxiety, depression, bipolar disorder etc. Appendices 7 & 8 outline a summary of the NICE evidenced based research for Depression and Generalised Anxiety Disorder in adults.

Many of these Guidelines were developed by the National Collaborating Centre for Mental Health (NCCMH). The NCCMH is funded by NICE and was established as a collaboration of the professional organisations involved in the field of mental health, national patient and carer organisations, a number of academic institutions and NICE. The NCCMH is led by a partnership between the Royal College of Psychiatry and the British Psychological Society Centre for Outcomes, Research and Effectiveness.

The stated aim of NICE Guidelines is 'to help health care professionals and patients make the right decisions about healthcare in specific clinical circumstances' (NICE, 2003). As such the purpose of the guidelines is to improve patient care, reduce geographical variation in health services and provide the most cost cost-effective way of utilizing resources (Hill et al, 2011).

In spite of these admirable aims NICE Guidelines are subject to criticism and barriers to their implementation. These criticisms pertain primarily to (a) design methodology in constructing the guidelines; (b) validity of the guidelines in clinical settings and (c) barriers to implementing guidelines in clinical practice.

(a) Design methodology in constructing the guidelines. NICE utilises a uniform process based upon the AGREE framework for developing guidelines. The process takes approximately 2½ years and includes initial topic selection; completion of systematic literature review; forming and consulting on recommendations and publishing the document. Within this process there are several points of potential conflict

- Guidelines place significant emphasis on evidence generated by Random Controlled Trails (RCTs) (Level 1 evidence) and significantly less importance to evidence based upon clinical expertise (level 3 evidence). However while RCTs are the 'Gold standard methodology' available to studies with large participant numbers, the methodology is significantly harder to achieve, and produces findings which are less robust, in areas with smaller participant numbers. This results in relatively few studies meeting the eligibility criteria for inclusion in mental health Guidelines. For example McArdle (2007) highlights that NICE site an RCT for anti-angina medication which involved 12,562 patients. In comparison the evidence base on which recommendations were made regarding the treatment of depression in children and young people only included a total of 387 patients. He concludes 'NICE tends to present its findings with an appearance of authority and precision that is unjustified by the evidence adduced'.
- The priority given to RCT's favours interventions which are time-limited and protocol driven - for example Cognitive Behaviour Therapy. This reinforces a self-perpetuating cycle where interventions which are easy to evaluate receive training and research funding, and those which are more complex to evaluate

via an RCT become disadvantaged and potentially obsolete. This process also potentially stifles the development of new interventions which could demonstrate efficacy over time.

- Published research is influenced by researcher allegiance effects and 'file drawer problems'. This creates bias in the evidence base.
- Guidelines are based upon a medical model and do not address social issues which are likely to influence response to treatment.
- Research favoured by NICE Guidelines is primarily based upon changes in symptomatology. There is however an emerging focus on user-defined outcome measures such as quality of life and functioning. McPherson (2009) re-examined studies included in the Depression Guidelines and identified that less than 30% of studies reported data on quality of life or functioning.
- Symptom severity is the factor which is most frequently used to allocate participants within research trials. However there is a growing body of evidence to suggest that psychosocial factors such as attachment style; the presence of personality disorder; patient's level of psychological mindedness; stage of change and level of social support most influence outcome of psychological therapies. As such assumptions regarding the homogeneity of clients which shared symptom severity are misleading. (Cooper, 2008).
- The research inclusion and exclusion criteria are set by the Guideline Development group. This can include a degree of subjective interpretation and hence may be open to debate.
- There is an assumption made about the homogeneity of disorders included within studies – however diagnosis of disorders may vary depending upon the culture, resources and service availability of the host country.

- There are proportionately very few UK-based studies included in many of the Guidelines.
- Guidelines focus upon the application of specific therapies with an assumption of fidelity to the model. It does not however include a consideration of the quality of treatment alliance (Kazdin, 2005) or engagement, empathy and hope/outcome expectancy (Jensen, 2005) which are frequently considered to 'transcend the different forms of therapy' to predict outcome (Kazdin, 2005).
- RCTs in principle compare the comparative effectiveness of the identified therapy with an equivalent therapy. In practice however, much published research compares the identified therapy with a diluted or minimal form of intervention. When all therapies being compared are bona fide ones the effect size of the difference between therapeutic approaches was estimated to be 0.2 (Cooper, 2008)
- Guidelines consider the most cost-effective treatment over a financial year. As such it focuses upon short-term benefits rather than long-term outcomes for chronic conditions (Berry & Haddock, 2008).
- Development and updating Guidelines is a time-consuming and expensive process. However there is a pressure to continually update guidance in pace with the continually emerging and expanding evidence base.

(b) Validity of the guidelines in clinical settings

- Guidelines are limited to very specific populations and generally exclude individuals with co-morbidity, with early or late onset of the disorder; individuals with learning disability; substance misuse; significant physical or sensory impairments etc etc. As such, Guidelines relate to a relatively small

percentage of patients who present with uncomplicated single disorder problems, and not to the majority of patients who attend clinical settings.

- Guidelines are based upon a medical model which conceptualises disorders as either present or absent. It does not adequately consider the continumn of symptom presentation, course or needs (Berry & Haddock, 2008)

- There is an assumption that patients will receive a timely and accurate diagnosis and will seek and accept help. However Lovell & Bee (2008) identified that only a small percentage of patients with a disorder actually receive intervention, and of those offered intervention further percentages of patients will not attend, will drop out prematurely, will fail to respond to treatment or may receive below-standard treatment.

- Older Guidelines do not specify treatment intensity e.g. number of therapist hours required at different levels of intervention. An assumption is also made that mode of intervention is synomonous with intensity of intervention e.g. telephone CBT could be delivered at higher intensity levels depending on the context of service delivery.

- Research is conducted with a degree of standardisation which is unable to be maintained in clinical settings.

- Therapists who participate in RCTs are generally highly trained in their area of intervention. This does not always reflect local service contexts where less skilled and/or less trained staff deliver interventions.

- Studies selected for inclusion in NICE guidelines are aggregated across a range of settings. This can decrease the applicability of specific guidance to specific settings. For example Scullard et al (2011) identified that only 26-80% of the research which guided recommendations for therapies of three physical

health conditions in primary care, was actually conducted in primary care settings.

(c) Barriers to implementing guidelines in clinical practice

- Implementation of Guidelines is based upon the assumption of the availability of an adequately resourced, accessible stepped care model. There is however variation in the type of stepped care model used within statutory services (e.g. systematic stepped care versus stratified stepped care) and often an absence of a stepped care structure within voluntary organisations.
- There is a dearth of access to some interventions (e.g. family therapy) and where it is available there can be a lack of a specific service structure to facilitate the delivery of the intervention.
- Staff may experience a pressure to implement therapies for which they have insufficient training. For example Rhodes et al (2010) survey of Community Mental Health Teams identified that the majority of staff (92%) were aware of the Depression guidelines and reported using CBT-based interventions in their clinical practice - although only a minority of individuals had a qualification to do so. Staff reported a reluctance to refer to dedicated CBT services due to long-waiting lists and co-morbid substance misuse problems which excluded the patients from the CBT service.
- There is a potential conflict between the dictated interventions outlined by NICE and the parallel NHS Service-User Empowerment agenda
- Psychological interventions are not given priority within caseloads – which are often crisis-driven.

- There is an absence of systems which ensure local implementation of the guidelines (Berry & Haddock, 2008). For example Toner et al (2010) completed a survey of GP's adherence to Depression Guidelines. It identified that 63% of GPs adhered to drug prescribing guidance, 65% adhered to talking therapies guidance and 60% adhered to the total Guideline.

What Works for Whom? A Critical Review of Psychotherapy Research.

The Department of Health (UK) in 1994 commissioned a review of the evidence-base for psychological therapies as part of its Strategic Policy Review of Psychotherapy Services. Roth and Fonagy completed this review and in 1996 published *What Works for Whom? A Critical Review of Psychotherapy Research.* A second publication *What works for whom? A Critical review of Treatments for Children and Adolescents* was published in 2002 by Fonagy et al, followed by a significant revision of *What Works for Whom? A Critical Review of Psychotherapy Research Second Edition* which was published in 2005. These books outline findings from a comprehensive systematic review of the evidence-base of psychological therapies for adults and children and young people.

A summary of the evidence based research evaluated for this publication for Depression and Generalised Anxiety disorders in adults in outlined in Appendices 9 &10.

Depression

5.1. 1 Overview of Disorder

Depression refers to a wide range of mental health problems characterised by a depressed mood or loss of interest or pleasure in almost all usual activities, accompanied by other depressive symptoms including:

- Disturbances in appetite, weight and sleep
- Tearfulness, irritability, social withdrawal
- Psychomotor agitation or retardation
- Decreased energy, fatigue, loss of libido
- Feelings of worthlessness, guilt, lowered self-esteem
- Difficulty concentrating, mental slowing, ruminations, negative thoughts about self or others
- Thoughts of death or suicide, or suicide attempts

Symptoms of depression occur on a continuum of severity. Depression is the most common mental disorder in community settings and is a major cause of disability. It causes greater decrement in health status than major chronic physical illnesses such as angina, arthritis and diabetes and is predicted to be the second most common cause of disability worldwide by 2020. In spite of this however recognition of the disorder is poor and a small percentage of people actually receive treatment.

Major Depressive Disorder is diagnosed based upon the severity and persistence of symptoms and the degree of functional and social impairment. Individuals may experience unreactive mood throughout the day or may experience diurnal variation. Individuals with a depressive disorder often experience concurrent mental health conditions, most often anxiety disorders. Depression can also co-occur with

psychotic symptoms – hallucinations and delusions etc – thus labelled psychotic depression; and symptomatology can follow a seasonal pattern known as Seasonal Affective Disorder (SAD). Depression can also be associated with pregnancy e.g. postnatal depression

Depression is estimated to affect at least 4.5% of the population with women twice as likely as men to be diagnosed with depression. The average age of onset for first episode of depression is mid-20s, although depression may occur from early childhood to old age. The duration of a depressive illness is typically 4 – 6 months although incomplete recovery and relapse are common. Individuals with an early onset depression or depression occurring in old age have an increased vulnerability to relapse. Research indicates that up to 75% of patients followed up after 10 years and 85% of patients followed up after 15 years experienced at least one relapse. 10% of patients will experience persistent depression.

"All my life was affected, especially my family life. My marriage has been affected in a big way .... my husband wants a separation"

While we are Waiting – We need to talk campaign

"The services provided by Aware Defeat Depression have been pivotal to my acceptance of a debilitating illness and provided me with vital coping mechanisms. On a day to day basis as well as in a crisis situation, Aware has ultimately saved my life."

"I'm not stupid you know. I may be depressed, I may be withdrawn, I may be psychotic, but I'm not like that all the time..."

"Any services, or treatments, or interventions, or supports must be judged in these terms – how much do they allow us to lead the lives we wish to lead?"

Repper & Perkins, 2003

The aim of intervention for depression is to restore health through the relief of symptoms which leads to better functioning and lower likelihood of relapse.

Dysthymia

Dysthymia is a chronic disorder which is characterised by depressed mood or loss of interest in nearly all usual activities which persists for at least 2 years. Symptom severity is less than observed in Depressive Disorder.

Dysthymia is characterised by depressed mood for most of the day with at least 2 of the following 6 symptoms:

- Changes to appetite
- Insomnia or hypersomnia
- Low energy or fatigue
- Reduced self-esteem
- Poor concentration and decision making
- Feelings of hopelessness and pessimism

Dysthymia has an incidence of 3% and a lifetime prevalence of 6%. Patients with dysthymia have an increased risk of developing a concurrent depressive disorder (double depression) and are likely to display faster cycles of recovery and relapse. There is also a high level of co-morbidity with chronic physical illness (e.g. hypothyroidism, multiple sclerosis etc), anxiety disorders, personality disorder and substance misuse. Dysthymia is 2-3 times more common in women than men and has an increased risk of occurring in first-degree biological relatives.

5 .1.2. Research Evidence Base

(a) NICE Guidelines

Depression: Treatment and management of depression in adults, including adults with a chronic physical health problem. Clinical Guideline 90 and 91 (2009)

NICE Guidelines recommend the following interventions:-

For individuals with mild-moderate depression or persistent sub-threshold depressive symptoms

- Individual guided self-help based upon CBT principles (including behavioural activation and problem solving techniques
- Computerised Cognitive Behaviour Therapy (CCBT)
- Structured group physical activity programme
- Group based CBT
- Drug treatment not indicated unless:
    i. Past history of moderate/severe depression
    ii. Symptoms present 2 years+

For individuals with moderate and severe depression; persistent mild-moderate depression unresponsive to low-intensity interventions and individuals with persistent sub-threshold depressive symptoms:

- Cognitive Behaviour Therapy
- Interpersonal Psychotherapy
- Behavioural Activation
- Behavioural Couples Therapy
- Antidepressant medication

For individuals with complex and severe depression: -

- Full range of high intensity psychological interventions
- Crisis resolution
- Home treatment services
- Pharmacotherapy
- Consider inpatient treatment
- Consider ECT

NICE Recommendations regarding future research priorities

The following areas were identified as priorities for future research studies:

1. The efficacy of short-term psychodynamic psychotherapy compared with CBT and antidepressants in the treatment of moderate to severe depression
2. The cost effectiveness of combined antidepressants and CBT compared with sequenced treatment for moderate to severe depression
3. The efficacy of light therapy compared with antidepressants for mild to moderate depression with a seasonal pattern
4. The efficacy of CBT compared with antidepressants and placebo for persistent sub-threshold depressive symptoms
5. The efficacy of counselling compared with low-intensity cognitive behavioural interventions and treatment as usual in the treatment of persistent sub-threshold depressive symptoms and mild depression
6. The efficacy of behavioural activation compared with CBT and antidepressants in the treatment of moderate to severe depression
7. The efficacy and cost effectiveness of different systems for the organisation of care for people with depression
8. The efficacy and cost effectiveness of CBT, IPT and antidepressants in prevention of relapse in people with moderate to severe recurrent depression
9. The effectiveness of maintenance ECT for relapse prevention in people with severe and recurring depression that does not respond to pharmacological or psychological interventions

(b) What works for whom?: A Critical Review of Psychotherapy Research – Roth & Fonagy, 2005

Depression

There is clear evidence of efficacy for

- Cognitive Behavioural Approaches
- Interpersonal Psychotherapy

There is limited evidence of efficacy for

- Short-term Structured Psychodynamic Psychotherapy

Dysthymia

Evidence suggests medication is the treatment of choice with little advantage conferred by the addition of psychological therapy. Clinical practice often observes the application of Cognitive Behaviour Therapy and Interpersonal Psychotherapy to patients with dysthymia although this is based upon clinical judgement rather than research evidence.

5 .1.3. Rapid Review Findings – Depression

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Driessen*	2010	23 studies- RCT; Controlled and Open studies	N = 1365 - 20 studies = adults; 3 studies = older adults - 9 community & 10 clinical populations - mild-moderate depression	Short-term psychodynamic psychotherapy Treatment Allocation - STPP – 713 - Psychotherapy – 551 - Control – 101 Therapy sessions for STPP Range from 3 - 80

Cuijpers	2010	16 RCTs	N= 2116 - 7 studies dysthmia - 4 studies chronic MDD - 3 studies double depression - 2 studies mixed categories - 14 studies Adult outpatients - 2 studies inpatients - Majority female - Mean age 30-50 years	Effects of Psychotherapy on major depression and dysthmia - Psychological Treatment = 689 - Control = 167 - Pharmacotherapy = 692 - Combined = 568 Psychological Treatments 7 = CBT 6 = IPT 8 = Other Number treatment sessions ranged 6 – 47 Individual Therapy = 11 Group therapy = 2 Mixed format = 3
Cuijpers	2010	11 RCTs (115 RCTs identified – 11 assessed as high quality)	N = Adult studies = 6 Older Adults = 2 Post-natal dep. = 1 Ethnic minority = 1 PTSD + dep. = 1	Effects of Psychotherapy – meta-analysis of study quality on effect size - 9 studies Individual therapy - 2 = Group therapy - 2 = mixed formats Number of sessions Range 6 - 20
Cuijpers	2010	117 RCTs	N = 9537	Efficacy of CBT – Study of publication bias 175 comparisons between Psychotherapy and Control Condition - Psychotherapy = 5481 - Control Group = 4056
Bortolotti	2008	12 RCTs	N = 1736 82.7% female Mean age 35.5 years	Psychological Interventions based upon explicit models - CBT & CCBT - Psychodynamic

			(range 18 – 79 years) Adults Major Depression or mixed anxiety & depression Primary Care	- IPT - Non-directive - Counselling 11 trials – individual 1 trial – group 6 – 16 weekly sessions (Median = 6 sessions)
Kaltenthaler	2008	4 RCTs	Mild – moderate depression; mostly females Mean age = 36.43 – 50.3 years	Computerised CBT
Parker	2008	17 RCT trails - 9 included in current analysis	444 pts Primary diagnosis major depression	CBT or CT versus Antidepressants - CT n = 37 - CBT n = 173 - - Controls n = 234
Ekers	2008	16 RCTs	N = 1109 > 16 years Community or Inpatient	Behavioural Treatment for depression Comparisons - Waiting list/placebo (12 studies) - CT/CBT (12 studies) - Brief psychotherapy (3 studies) - Supportive therapy (2 studies)
De Maat	2007	7 RCTs	N = 903 - Adult psychiatric outpatients - Diagnosis unipolar MDD - 228 pts chronic depression - 675 acute depression	Psychotherapy 4 = Cognitive therapy 2 = CBT 1 = STPP Treatment allocation 495 = Psychotherapy 444 = combined therapy Therapy duration = 8 – 20 weeks; therapy sessions 16 – 24 sessions
Anderson	2005	6 RCTs	16 years+ Diagnosis or symptoms of depression	Evaluation of bibliotherapy – Book = Feeling Good
McPherson*	2005	4 Controlled & 8	- N = 141 - Definite or	Psychological therapies for treatment resistant

		uncontrolled	probable MDD - Community and inpatient settings - Failed to respond to medication	depression **Controlled studies** - CBT - Cognitive Therapy - Control = medication, wait list, bibliotherapy Number of sessions – 15 to 36 sessions **Uncontrolled studies** - CBT (7) - Psycho-education (1) -
Pampallona	2004	16 RCTs	N – 1842 MDD = 10; Dysthymia = 3; unipolar = 2; Mixed = 1 Mean age = 40; % females range from 50-100%	Psychological Interventions - CBT –7 - IPT – 2 - Psychodynamic – 2 - Other – 5 Treatment allocation - Pharmacotherapy n = 932 - Combined treatment n = 910 Intervention range 4 – 24 weeks (Median = 12 weeks)

* = Less robust evidence base

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Dreissen (1)	Standardised self-report E.G. BDI; HDRS; Zung Depression Scale; SCL-90	- STPP VS Control group at post-treatment (SMD = 0.69; 95% CI: 0.30 to 1.08; p =.20) in favour of STPP - STPP Pre-Post therapy change SMD = 1.34 95% CI: 1.13 to 1.55; 21 studies); at 1 year follow up SMD = –0.04 95% CI: -0.21 to –0.12; 8 studies) - STPP VS Other Therapies – Post Treatment SMD = -0.30 95% CI: -0.54 to –0.06; 15 studies); at 3 month follow-up SMD = -0.05 95% CI: -0.29 to –0.19; 6 studies)
Cuijpers (2) 2010	Standardised measures E.G Hamilton (13 studies); BDI (7 studies) Cornell	- Psychological treatment VS Control – 8 comparisons SMD = 0.23 95% CI: 0.06 to 0.41) NNT = 7.69 - Psychological treatment VS Pharmacotherapy SMD = -0.31; 95% CI: -

	Dysthymia Rating Scale (3 studies	0.53 to –0.09; p <0.01) –superior effect for pharmacotherapy; NNT = 5.75 - Pharmacotherapy VS combined treatments – 9 comparisons SMD = 0.23; 95% CI: -0.01 to –0.47; p<0.1 in favour of combined treatment. NNT = 7.69 - No difference in drop-out rates across all conditions
Cuijpers (3) 2010	Standardised measures E.G. HDRS; BDI	- Mean effect size for all comparisons (SMD = 0.68; 95% CI: 0.60 to 0.76. NNT = 2.70) - Mean Effect Size for high quality studies (SMD = 0.22, 95% CI: 013 to 0.31. NNT = 8.06)
Cuijpers (4) 2010	Comparison of effect sizes	- Mean effect size for all comparisons SMD =0.67; 95% CI: 0.60 to 0.75 - Mean effect size after adjustment for publication bias - SMD = 0.42; 95% CI: 0.33 to 0.51 - Assessments for publication bias (Duval & Tweedie's Trim and fill procedure) were highly significant p<0.001 - Comparisons for CBT SMD = 0.69; after adjustment for publication bias = 0.49
Bortolotti (5) 2008	Standardised measures E.G. BDI; Hamilton Depression Scale	- Greater effectiveness over TAU in both short-term (SMD = -0.42; 95% CI: -0.59 to –0.26 n = 408) and long term (SMD = -0.30; 95% CI: -0.45 to –0.14; n = 433) - No difference compared to medication control group in short term (SMD = 0.03; 95% CI: -0.21 to 0.26; 4 trials n = 295) or long term SMD 0.04; 95% CI: -0.23 to 0.31, 3 trials, n = 217)
Kaltenthaler (6) (2008)	Standardised measures E.G. DBI; CES-D Scale	- CCBT more effective than TAU/Control in symptom reduction - Some increase in satisfaction - Drop-out rates varied from 15 – 35%
Parker (7) 2008	Standardised measure = BDI scale	- CT Vs medication – small not sig effect size in favour of CT; d = -0.173; p = 0.463 - Lower rate of drop out by CT patients – medication pts 2.1 times greater drop out; p <0.01
Ekers (8) 2008	- Standardised self report and clinician rated measures E.G. BDI; HDRS; - Recovery & drop-out rates	- BT and CBT provide equivalent treatment results (SMD = 0.08; 95% CI: -0.14 to 0.30, 12 studies n = 476) and no difference in recovery or drop-out rates - BT superior to Wait list Control (SMD = -0.70, 95% CI: -1.00 to –0.39; 12 studies n= 459); brief psychotherapy (SMD = -0.56; 95% CI: -1.0 to –0.12; 3 studies, n = 166); supportive therapy (SMD = -0.75, 95% CI: -

		1.37 to –0.14, 2 studies, n = 45) No difference in drop-out rates. Greater recovery rates than TAU and brief psychotherapy
De Maat (9) 2006	Standardised measures - BDI - Hamilton Depression Rating Scale	- Combined therapy more effective than psychotherapy alone; 46% VS 34% RR = 1.32; p, 0.0007 - No difference in drop-out rates from combined therapy (25%) and psychotherapy (24%) - Effectiveness of therapy did not differ for chronic and acute depression - Remission rates for acute depression – Psychotherapy = 37%; Combined = 43% (not sig. p = 0.45) - Remission rates for chronic depression – Psychotherapy = 32%; Combined = 48% (sig. difference p <0.001)
Anderson (10) 2005	Hamilton Rating Scale for Depression	- Large improvement in measures of depression at 4 weeks (SMD = -1.36; 95% CI: -1.76 to –0.96; p <0.0001)
McPherson (11) 2005	Standardised self-report measures e.g. HRSD; DBI	- High quality controlled studies - Symptom reduction Effect sizes = 1.29 p<0.01 and 3.10 p <0.05 (2 studies) - Uncontrolled studies – reduction in symptoms post-treatment - sig. at p<0.05 (3 studies)
Pampallona (12) 2004	Percentage of clients - full response - partial/no response - drop-out	- Comparison Pharmacotherapy VS Combined treatment - Sig. advantage of combined treatment (SMD = 1.86; 95% CI: 1.38 to 2.52) - No difference in drop-out or non-response rates - Studies > 12 weeks had significant advantage (OR = 2.21; 95% CI: 1.22 to 4.03)

Research recommendations arising from the above studies

The above authors have identified a range of future research foci relating to methodological design – for example ensuring high quality studies with adequate randomisation, blinding etc (2); the inclusion of representative samples (5, 11); longer term outcomes (5, 11) which have broader definitions (12) such as social functioning and quality of life (9). Recommendations also relate to the interface between the

patient and mode of therapeutic delivery – for example what are patient preferences and attitudes and how do these impact on drop-out rates (6); how should the content of therapy be adapted to different patient groups (2) and how to isolate the active ingredients of existing therapies and identify which treatment components are most effective for which patient groups (4). Finally the research recommendations suggest comparisons of existing treatment options – e.g. comparisons of Cognitive Therapy and medication (7) and bibliotherapy and medication (6) but also highlights the limitations in the effectiveness of existing therapies with a call for the development and evaluation of new treatments for depression (4).

Generalised Anxiety Disorder

5.2.1. Overview of Disorder

Generalised Anxiety Disorder (GAD) is characterised by widespread worry which is out of proportion to circumstances, is difficult to control and causes clinically significant distress or impairment in functioning.

Psychological symptoms include:

- Irritability
- Poor concentration
- Increased sensitivity to noise
- Sleep disturbance

Somatic symptoms include:

- Overactive autonomic nervous system – leads to sweating, palpitations, dry mouth, urinating frequency, epigastric discomfort
- Hyperventilation – shortness of breath, dizziness
- Increased muscle tension – restlessness , headaches, fatigue, aching pains, inability to relax

"It was good to talk about the experiences that I was going through during that period of my life. It helped me to gain a certain amount of perspective on my situation and taught me methods to deal with my anxiety and panic attacks."

"In the groups we looked at causes of anxiety and depression and were reminded of strategies for coping. This was helpful but I still feel I need individual help."
"Sessions are too superficial to sort out any problems."

While we are waiting – We need to talk Campaign

"…if you've got acute agoraphobia and you can't virtually get past your front door, the treatment centre might only be 5 minutes away but it's still impossible at that time."

"But there's also, right at the beginning, where the therapist says to you 'ok, what we can offer you is six weeks' and then you've got this awful feeling, right, I've got to get better in six weeks."

Gideon, 2009

GAD has an estimated worldwide lifetime prevalence of 0.8% to 6.4% and annual UK prevalence of 4.4%. Prevalence of GAD is 1.5 to 2.5 times higher in women than men and is most common in adults aged 25 – 55 years.

The onset of GAD symptoms is usually gradual although it may be precipitated by stressful life events. GAD tends to fluctuate in severity and is recurrent and chronic in presentation with a low rate of remission and recovery.

GAD is frequently co-morbid with other mental health conditions, with up to 90% of patients showing concomitant symptoms of depression, dysthymia, somatisation, bipolar disorder or substance abuse (Kessler 1994).

There is also significant co-morbidity observed with avoidant or dependent personality disorder and with a significant increase in suicidal ideation and suicide attempts.

Approximately 5% of patients attending Primary Care Services have GAD although recognition rates are only 34% for pure GAD and 43% for GAD plus co-morbid depression. The aim of treatment for GAD is to relieve symptoms, regain functioning and prevent relapse.

5.2.2 Research Evidence Base

(a) NICE Guideline Recommendations

NICE Guideline: Generalised Anxiety Disorder and Panic Disorder (with or without agoraphobia) in adults: Management in primary, secondary and community care Clinical Guideline Number 113 (2011)

For individuals who have a diagnosis of GAD it is recommended that they be provided with education about the disorder and be subject to active monitoring of their symptoms and functioning (Step 1 interventions).

If symptoms have not improved offer low-intensity psychological interventions – such as:

- Individual non-facilitated self help
- Individual guided self-help
- Psycho-education groups (Step 2 interventions)

For individuals who remain symptomatic following low-intensity interventions or have marked functional impairment offer:

- Cognitive Behaviour Therapy (typically 12-15 weekly sessions)
- Applied Relaxation (typically 12-15 weekly sessions)
- Drug treatment

For individuals with complex, treatment-refractory GAD; very marked functional impairment or high risk of self harm – consider

- Combined psychological & drug treatments
- Day Hospital treatment
- Inpatient treatment

NICE Research Recommendations - Anxiety

1. In well defined GAD, what is the clinical and cost effectiveness of two CBT-based low-intensity interventions (CCBT and guided bibliotherapy) compared with a waiting list control?
2. For people with GAD who are ready to start a low-intensity intervention, what is the clinical effectiveness of physical activity compared with a waiting list control?
3. Comparison of clinical and cost effectiveness of sectraline and CBT in people with GAD who have not responded to guided self-help and psycho-education.
4. The clinical and cost effectiveness of 2 CBT-based low intensity interventions (CCBT and guided bibliotherapy) compared to a waiting list control.
5. The effectiveness of physical activity compared with waiting list control.
6. The clinical and cost effectiveness of a primary care based collaborative care approval to improving the treatment of GAD compared with usual care.

(b) What works for whom?: critical review of psychotherapy research (Roth & Fonagy, 2005)

There is a strong evidence base for the application of

- Cognitive Behaviour Therapy
- Applied Relaxation

5.2.3 Rapid review findings – Generalised Anxiety Disorder

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Belleville*	2010	19 Controlled outcome studies	N= 1201 Adults Diagnosis of at least 1 anxiety disorder Volunteers - 10 studies PTSD - 5 studies	Impact of CBT for anxiety disorder on concomitant sleep disturbance 19 Group studies using volunteers Group size Range = 15-184 -15 Group CBT - Behaviour Therapy

			GAD - 4 studies Panic disorder	Treatment sessions Range 1-29
Hunot*	2007	Cochrane Review 22 RCT & quasi-randomised controlled trials	N = 1060 Non-inpt. adults 18 – 75 years; Primary Diagnosis = GAD	To examine the efficacy and acceptability of Psychological Therapies Comparisons - CBT VS TAU (8 studies) - CBT VS CT/BT (7 studies) - CBT VS Supportive (6 studies) - CBT VS Non-directive (2 studies) - CT VS Analytic therapy (1 study) - CBT, CT, BT + Placebo VS Waiting list (1 study)

* = less robust evidence base

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Belleville (1) 2010	- Sleep diary - Sleep Q'aire - Anxiety Q'aire	- The combined effect size for CBT on sleep disturbance SMD = 0.527; 95% CI: 0.306 to 0.748 - Impact did not significantly differ dependent upon study design or nature of anxiety disorder
Hunot (2) 2007	- Reduction in diagnostic criteria - Standardised measures E.G. Hamilton Anxiety Scale; BAI; State Trait Anxiety Scale; HADS; Zung Anxiety Scale	- Psychological therapies VS TAU (8 studies n = 334) Clinical response 46% VS 14% (RR 0.64; 95% CI: 0.55 to 0.74- highly sig.) - CBT VS psychodynamic (1 study, n = 110) Clinical response 28% VS 7% (RR 0.77; 95% CI: 0.65 to 0.92 – sig.) - CBT VS Supportive therapy (6 studies, n = 332) Clinical response 42% VS 28% (RR 0.86; 95% CI: 0.70 to 1.06 – not sig.) - CT VS Behaviour Therapy (5 studies, n= 220) Clinical response 50% VS 31% (RR 0.70, 95% CI: 0.56 to 0.87 – sig.) - Higher drop-out rate for group than individual therapy - Attrition rates in elderly significantly higher

Research recommendations arising from the above studies

The above authors recommend the completion of further RCTs which incorporate a longer follow-up assessment with broader outcome measures, for example to include sleep (1) and quality of life (2) as outcome variables. They also recommend the completion of RCTs which review the effectiveness of Cognitive Analytical Therapy and Interpersonal Psychotherapy and to compare the effectiveness of CBT and non-CBT interventions (2)

Panic Disorder

5.3.1 Overview of Disorder

Panic disorder is characterised by the presence of recurrent, unexpected panic attacks associated with persistent worry and anticipatory anxiety about future panic attacks and their consequences. Fear of experiencing panic attacks often leads to avoidance of certain situations or the need to be accompanied by someone else.

The prevalence of panic disorder is estimated to be approximately 2%. Females are twice as likely to display panic attacks as men and the peak onset for panic disorder is 25-35 years.

> "Symptoms jump you from behind without warning. Your heart begins to beat widely, your forehead is suddenly wet with perspiration, your hands tremble, your throat dries and swallowing is almost impossible. Your mind races to grab control of your body, but even as you tell yourself to 'stay calm' it happens you look for the nearest door, any door, so that you can run away, far away, because that's the only thing that seems to help"
>
> Take control of your life: A complete guide to stress

Panic disorder often co-occurs with a diagnosis of agoraphobia (fear of being in places or situations from which escape may be difficult), and with unipolar and bipolar depression. The prevalence of panic disorder is higher among people with physical health conditions (e.g. cardiac patients 20 – 50%; gastrointestinal presentations 28 – 40%).

Panic disorder is often persistent and recurrent and results in substantial long term disability, decreased quality of life and impaired social and work functioning. Panic disorder is frequently unrecognised and individuals often experience many physical investigations to exclude physical conditions before the correct diagnosis is made.

5.3.2 Research Evidence Base

(a) NICE Guideline Recommendations

Generalised anxiety disorder and panic disorder (with or without agoraphobia) in adults: Management in primary, secondary and community care. *NICE Clinical Guideline 113 (2011)*

The NICE Guideline recommendations for interventions for panic disorder are outlined in the table below:

Service Level	Recommended Interventions
Treatment in Primary Care	- Cognitive Behaviour Therapy - Antidepressant medication - Self-help (bibliotherapy based upon CBT principles) - Information about support groups
Treatment in Secondary Care	- Cognitive Behaviour Therapy (with an experienced therapist) - Structured Problem Solving - Full exploration of pharmacotherapy

Psychological, pharmacological and combination interventions have been shown to be effective in panic disorder. Meta-analysis do not give consistent and firm evidence for whether talking therapies or combination therapies have better outcomes. Eye movement desensitisation and reprocessing (EMDR) is ineffective in panic disorder. There is a lack of evidence to support the following interventions in panic disorder: hypnosis, interpersonal psychotherapy, neurolinguistic programming, problem solving, progressive muscular relaxation, psychoanalysis, solution focused therapy, stress control and management, psychodynamic therapy or bilateral stimulation.

NICE Research Recommendations

1. The clinical and cost effectiveness of two CBT-based low-intensity interventions (CCBT and guided bibliotherapy) compared with a waiting-list control for the treatment of panic disorder
2. To establish the duration which psychological interventions should be used to achieve a successful outcome
3. To identify the long-term benefits of psychological interventions
4. To identify if counselling would provide an effective intervention for panic disorder

5. To establish the cost-effectiveness of various models of CBT
6. To explore the relationship between the clinical skills of the therapist, the involvement of the patient and clinical outcome
7. To identify the professional backgrounds and training requirements of therapists to deliver psychological interventions for Panic Disorder
8. To establish the effectiveness of all interventions in general clinical populations rather than highly selective populations
9. To identify effective interventions for treatment resistant panic disorder
10. To establish the relationship between duration and severity of illness and likely success of treatment

(b) What works for whom?: critical review of psychotherapy research (Roth & Fonagy, 2005)

There is a strong evidence base for the application of

- Exposure Therapy
- Cognitive Behaviour Therapy
- Panic Control Therapy

5.3.3 Rapid Review Findings – Panic Disorder

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Sanchez Meca*	2010	42 Controlled studies	Adults Diagnosis of Panic disorder (with or without agoraphobia) based upon DSM/ICD criteria 2560 patients	Psychological interventions include – - Relaxation training - Breathing retraining - Exposure Therapy - EMDR - Cognitive therapy - Anxiety management - Other therapies 2560 Pts Pre-test - 1712 treatment - 848 control 2357 Pts post-test - 1559 treatment - 798 control

Furukawa	2007	3 RCTs	103 patients DSM diagnosis of Panic Disorder 72% female Mean age = 33-38 years	Pill placebo augment CBT for Panic Disorder 12 weeks intervention - CBT - CBT + placebo - Exposure - Exposure + placebo
Furukawa	2006	23 RCTs	1709 pts Majority female Average age 30 – 40 years Panic Disorder 5 – 10 years	Psychotherapy plus antidepressants for panic disorder - 12 trials Behaviour Therapy - 9 trials CBT - 2 trials Other/ mixed
Mitte*	2005	124 Controlled studies	- 9,536 patients with diagnosis of Panic Disorder; - 77% females - Average age = 36.5 years - Duration of diagnosis = 8.4 years	Efficacy of psychotherapy and pharmacotherapy - 53 pharmacotherapy - 47 psychosocial therapy - 24 both treatments Average length of therapy = 14 hours

* = Less robust evidence base

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Sanchez Meca (1) 2010	Standardised assessments of Panic (E.G. Panic Attack Symptoms Q'aire; Panic Appraisal Inventory) and general measures (E.G. Hamilton Anxiety Scale; Anxiety Sensitivity	- Overall effectiveness of psychological treatments (65 comparisons) SMD = 0.784; 95% CI: 0.663 to 0.905 - Breathing retraining & exposure SMD = 1.837 - Exposure alone SMD = 1.528 - Exposure & Cog. Therapy SMD = 1.285 - Breathing training alone SMD = 0.862 - Breathing & Exposure & CT SMD = 0.833 - Moderator variables with sig. Impact were inclusion of homework (p = .002); inclusion of a follow-up programme (p = .076) and type of intervention (indiv. prog.) p = .083

	Index, etc)	
Furukawa 2007 (2)	Measures = Clinical Global Impression Change Scale & Panic Disorder Severity Scale	- CBT + placebo were 1.26 times (95% CI: 1.02 to 1.55) more likely to show response than CBT alone at end of therapy - No difference in drop out rates between 2 groups - No difference in results at 6 and 24 month follow-up
Furukawa 2006 (3)	Measure include: Fear Q'aire-agoraphobia subscale; Clinical Global Impression Scale; Panic Frequency Scale; Panic Disorder Severity Scale	- Psychotherapy + antidepressant VS antidepressant (11 comparisons) Combination Therapy 1.24 times more likely to produce response (95% CI: 1.02 to 1.52) in acute phase and superior at 6-24 months follow-up - Psychotherapy + antidepressants VS Psychotherapy (19 comparisons) Combination Therapy 1.16 times more likely to produce response (95%; CI: 1.03 to 1.30) in acute phase. At 6-24 months follow-up no sig. Difference between 2 options
Mitte (4) 2005	Self Report & Observer Rated& behavioural tests of – anxiety, depression, quality of life, clinical symptoms	- No sig. Difference in effectiveness between psychotherapy and pharmacotherapy (11 studies) - Higher effect size for CBT than pharmacotherapy - Combination of CBT and pharmacotherapy slightly more effective than CBT alone - Higher drop-out

Research recommendations arising from the above studies

The primary recommendation arising from the above papers was the completion of more systematic reviews which focus upon comparisons of existing psychotherapies. For example Furukawa (2006) suggested further research was required to assess the comparative effectiveness of combination treatment of Panic Disorder involving medication and a non-CBT psychotherapy e.g. psychodynamic therapy, IPT etc

Obsessive Compulsive Disorder

5.4.1 Overview of Disorder

Obsessive compulsive disorder (OCD) is characterised by the presence of either obsessions or compulsions or frequently both. An obsession is defined as an unwanted intrusive thought, image or urge which repeatedly enters the person's mind. Such obsessions are distressing to the individual and are usually acknowledged to be unreasonable or excessive.

Individuals with OCD tend to believe that intrusive thoughts and urges are dangerous or immoral and that they are able to prevent them occurring by the completion of a compulsion.

Compulsions are repetitive behaviours and mental acts which the person feels driven to perform. Compulsion may be overt and observable or a covert mental act that cannot be observed. The most frequent compulsions are checking (e.g. that door is locked), cleaning, washing and repeating special words or prayers in a set manner.

> "My whole day is spent checking that nothing will go wrong. It takes me an hour to get out of the house in the morning because I'm never sure I've turned off all the electrical appliances like the cooker and locked all the windows. Then I check to see that the gas fire is off 5 times, but if it doesn't feel right I have to do the whole thing again. In the end I ask my partner to check it for me anyway. If I don't check I feel so worried I can't bear it. I know it's ridiculous but I think if something awful happened I'd be to blame"
> Royal College of Psychiatry – website

Individuals with OCD engage in rumination, which refers to prolonged thinking about their obsession and/or compulsions and safety seeking behaviours, which the individual uses to divert or distract him or herself from the rumination. Individuals with OCD also engage in avoidance behaviours in an attempt to prevent the obsession and/or compulsion from occurring.

For diagnosis of obsessive compulsive disorder, the individual must experience marked distress and/or significant interruption to occupational and/or social functioning. Obsessive compulsive disorder occurs on continuum of severity and can follow an acute, episodic or chronic course.

OCD is estimated to have a lifetime prevalence of 2 – 3% and to have a mean age of onset in late adolescence for men and early twenties for women. Individuals with OCD also experience high levels of co-morbidity, most frequently with depression, anxiety, alcohol or substance abuse and body dysmorphic disorder.

The cause of OCD is currently unknown although there is increasing research evidence of the involvement of biological factors e.g. genetic patterns, neurological and neurochemical differences. The onset and maintenance of OCD is also associated with experiencing adverse life events, socio cultural factors, perfectionistic psychological tendencies and personality disorder or traits.

5.4.2 Research Evidence Base

(a) NICE Guideline Recommendations

NICE Guideline – Obsessive-compulsive disorder: Core interventions in the treatment of obsessive-compulsive disorder and body dysmorphic disorder. National Clinical Practice Guideline Number 31 (2006)

NICE guidelines recommend that individuals with mild OCD should be offered low intensity interventions including brief individual CBT using structured self-help materials; brief individual CBT by telephone or group CBT. It is noted that there is currently no evidence base for the provision of psychoanalysis, transactional analysis, hypnosis or marital/couple therapy for OCD.

Individuals with poor response to initial treatment and/or severe OCD should be offered either pharmacotherapy or intensive CBT or a combination of both. For individuals with severe, chronic treatment-refractory OCD specialist in-patient treatment should be considered.

NICE Guidelines Research Recommendations

1. Appropriately blinded randomised controlled trials (RCTs) should be conducted to assess the acute and long-term efficacy (including measures of social function and quality of life), acceptability and the cost effectiveness of CBT and SSRIs
2. CBT treatment intensity formats among adults with OCD
   Appropriately blinded RCTs should be conducted to assess the efficacy (including measures of social function and quality of life), acceptability and the cost effectiveness of different delivery formats of CBT that include ERP for adults with OCD, including brief individual CBT using structured self-help materials, brief individual CBT by telephone, group CBT and standard individual CBT compared with each other and with credible psychological treatment that is not specific to OCD and BDD (such as anxiety management training) in a broadly based sample of people diagnosed with OCD across a range of functional impairment (using minimal exclusion criteria). The trials should be powered to examine the effect of treatment in different bands severity or functional impairment and involve a follow-up of 1 and 2 years.
3. CBT for adults with OCD who have not responded to treatment
   An appropriately blinded RCT should be conducted to assess the efficacy (including measures of social functioning and quality of life as well as OCD) of intensive versus spaced individual treatments (that include both ERP and cognitive therapy elements) compared with a treatment-as-usual control in a broadly based sample of adults diagnosed with OCD who have not responded to one or more adequate trials of an SSRI or clomipramine and one or more trials of CBT (that included ERP). The trial should be powered to examine the relative efficacy of intensive versus spaced treatment and involve a follow-up of 1 and 2 years. Any treatment received in the follow-up period should also be recorded.
4. Screening for OCD
   Appropriately designed studies should be conducted to compare validated screening instruments for the detection of OCD in children, young people and adults. An emphasis should be placed on examining those that use computer technology and more age-appropriate methods of assessing both symptoms and functioning, taking into account cultural and ethnic variations in communication, and family values

(b) What works for whom?: critical review of psychotherapy research (Roth & Fonagy, 2005)

There is a strong evidence base for the application of

- Exposure and Response Prevention

There is mixed evidence for the benefit of adding Cognitive Restructuring and Rational Emotive Therapy in combination with Exposure. Such additional interventions are most indicated for individuals who do not respond to Exposure and Response Prevention for the management of ruminations.

5.4.3 Rapid Review Findings – OCD

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Jonsson*	2009	RCTs- N = 4; Controlled- N = 4; Open – N= 5	18years + yrs Primary Diagnosis OCD based on DSM criteria Total N = 828 Mean age = 36.4 years 63% female	**Group Behaviour Therapy with Exposure & Response Prevention (ERP) VS Group CBT** 549 = Group Therapy 79 = Waitlist controls 83 = Pharmacotherapy 25 = Individual CBT 17 = Group Relaxation 75 = Other active treatment
Rosa-Alcazar*	2008	Controlled studies N = 19 (experimental & quasi-exper.)	Total N = 752 24 Treatment groups = 431 Pts 19 Control Groups = 321 pts	**Exposure with response prevention (ERP) VS** 21 comparisons – include - In vivo exposure (13 comparisons) - Combined in vivo & imagination (7 comparisons) **Cognitive restructuring** – 11 comparisons

* = Less robust evidence base

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Jonsson 2009	Yale-Brown Obsessive Compulsive Scale	Overall Group Psychological Interventions (CBT & ERP) - Pre-Post ES = 1.18 Symptoms of OCD (13 studies) - SMD = 0.52; 95% CI: 0.35-0.69 Depression (N = 11) - SMD 0.77; 95% CI: 0.49 – 1.06 Anxiety (N = 4) - Group Treatment VS Control (N = 3) SMD = 1.12; 95% CI: 0.78 – 1.46 - Group Treatment VS Placebo (N = 1) Lower drop-out rate than placebo - Group Treatment VS Individual CBT (N = 1) Non-sig effect size (0.19) in favour of Indiv. CBT
Rosa-Alcazar 2008	Self report & clinician assessment - OCD - Anxiety - Depression - Social adjustment	- ERP (d = 1.127) and CR (d = 1.090) highly effective in reducing OCD symptoms – no sig difference between interventions - Combined treatment – slightly lower effect (d = 0.998) - Therapist supervised exposure (d = 1.217) more effective than assisted self-exposure (d = 0.480) - No sig. Difference between ERP (d = 0.526); combined (d = 0.838) & CR (d = 0.418) for depression - Mixed exposure (d = 1.142) more effective than in vivo (d = 0.299) in decreasing depressive symptoms - Therapist guided exposure (d = 0.781) higher mean effect size than therapist assisted self-exposure (d = -0.006) - Some evidence for greater effectiveness for patients with co-morbid presentations (11 studies)

Research recommendations arising from the above studies

Authors of the above studies recommended the completion of further Random Controlled Trials which involved data from all participants enrolled in the studies (intention-to-treat), not just the data from subjects who completed the trials. They also recommended completing comparisons between individual and group therapy to assess their relative effectiveness and to complete longer follow-up studies to evaluate the stability of therapeutic benefits achieved over time.

Post Traumatic Stress Disorder

5.5.1 Overview of Disorder

Post Traumatic Stress Disorder (PTSD) is an anxiety disorder which may develop after “a stressful event or situation of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone” (World Health Organisation 1992).

The development of PTSD is dependent upon the objective facts of certain situations and the individual’s subjective perception of the event. Individuals at risk of developing PTSD include those directly affected by the event, witnesses’, perpetrators and those who treat PTSD sufferers (vicarious traumatisation). Individuals with PTSD display re-experiencing symptoms e.g. flashbacks, nightmares, intrusive images and sensory impressions of the event. Such reminders of the traumatic event arouse intense distress and/or physiological reactions which in turn encourage the person to avoid situations and events which serve as a remember of the trauma.

Individuals with PTSD can experience excessive rumination, symptoms of hyper-arousal (e.g. hypervigilant, exaggerated startle response, irritability, difficulty in concentrating and sleep problems) and the experience of emotional numbing, depression, anxiety, shame and guilt.

The onset of symptoms is usually within the first month after a traumatic event with a gradual improvement in symptoms naturally occurring in the initial months and years. However, approximately 30% of individuals who initially develop PTSD remain symptomatic after three years and as such require psychological intervention. Such individuals often experience co-morbid disorders such as substance misuse, depression (including the risk of suicide) and anxiety disorders such as panic

disorder. It is noted by Kessler (1995) in an epidemiological study that 85 – 88% of men and 78 – 80% of women with PTSD had co-morbid psychiatric diagnosis.

The risk of developing PTSD after a traumatic event is 8.1% for men and 20.4% for women (Kessler et al 1995) with a lifetime prevalence of PTSD estimated at 10.4% for women and 5% for men.

Differential diagnosis for PTSD include depression, phobias, adjustment disorders, personality change, dissociative disorder, neurological damage and psychosis.

5.5.2 Research Evidence Base

(a) NICE Guideline Recommendations

Post-traumatic Stress Disorder; the Management of PTSD in adults and children in primary and secondary care *National Clinic Practice Guideline number 26 (2005)*

NICE guidelines indicate that single session debriefing intervention should not be offered as routine practice immediately following a traumatic event and that "watchful waiting" be maintained. It is suggested that a brief screening instrument for PTSD be completed at one month following the event.

Trauma Focused Cognitive Behaviour Therapy (TFCBT) or Eye Movement Desensitisation and Re-processing (EMDR) should be offered to PTSD sufferers regardless of the time that has lapsed since the trauma. Individuals will typically require 8 – 12 sessions which should be provided on a regular and continuous (usually at least once a week) basis delivered by the same therapist.

Trauma-focused psychological treatment should be extended in duration where the condition is chronic or where the individual has been exposed to multiple traumatic events or has significant co-morbid disorders or social problems. It is noted that there is, as yet, no convincing evidence for the clinical effectiveness of supportive therapy, nondirective therapy, hypnotherapy, psychodynamic therapy or systemic psychotherapy in the treatment of PTSD

NICE Guidelines Research Recommendations

1. An appropriately designed longitudinal study should be conducted to determine if a simple screening instrument, acceptable to those receiving it, can identify individuals who develop PTSD after traumatic events and can be used as part of a screening programme to ensure individuals with PTSD receive effective interventions.
2. A randomised controlled trial, using newly developed guided self-help materials based on trauma-focused psychological interventions, should be conducted to assess the efficacy and cost-effectiveness of guided self-help compared with trauma-focused psychological interventions for mild and moderate PTSD.
3. Trauma-focused psychological interventions in adults
   Adequately powered effectiveness trials of trauma-focused psychological interventions for the treatment of PTSD (trauma-focused cognitive–behavioural therapy and eye movement desensitisation and reprocessing) should be conducted. They should provide evidence on the comparative effectiveness and cost-effectiveness of these interventions and consider the format of treatment (type and duration) and the specific populations who might benefit.
4. Trauma-focused psychological treatment versus pharmacological
   Treatment. Adequately powered, appropriately designed trials should be conducted to determine if trauma-focused psychological treatments are superior in terms of efficacy and cost effectiveness to pharmacological treatments in the treatment of PTSD and whether they are efficacious and cost-effective in combination.

(b) What works for whom?: critical review of psychotherapy research (Roth & Fonagy, 2005)

There is a strong evidence base for the application of

- Cognitive Behavioural Approaches
- Eye Movement Desensitization and Reprocessing (EMDR)

There is a developing evidence base for the application of structured Psychodynamic Psychotherapy although methodological difficulties detract from establishing a clear evidence base.

5.5.3 Rapid Review Findings

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Hentrick	2010	Cochrane Review 4 RCTs	Chronic or recent onset PTSD Any Age 3 Adult trials 1 Child & Adol. trial	Combined psychotherapies and pharmacotherapy for PTSD - Combination therapy + pharmacotherapy N = 2 trials - Combination therapy + psychological therapy N = 2 trials
Roberts	2009	25 RCTs (98 trials)	5247 pts	Efficacy of multiple session Early Interventions - Brief Psychosocial Interventions within 1 month of trauma (8 studies) - Psychological intervention with 3 months of trauma

				(15 studies) - Psychological interventions to patients diagnosed acute stress disorder (11 studies)
Benish	2008	15 RCTs	Primary diagnosis PTSD based upon DSM criteria 958 pts	Direct comparison of bone fide psychotherapies TFCBT EMDR Stress Management Group CBT Other therapies
Bisson	2007	38 RCTs	>16 years PTSD at least 3months+	Relative efficacy of psychotherapy for chronic PTSD - TFCBT (25 studies) - EMDR (12 studies) - Stress Management (7 studies) - Group CBT (4 studies) - Other therapies (6 studies)
Bradley *	2005	26 RCTs and controlled studies	1535 pts - Treatment = 966 - Wait list = 317 - Placebo = 252 78.9% completed treatment	Factors which influence efficacy and generalisability 44 treatment conditions - 13 exposure based therapies - 5 CBT - 9 combined CBT & exposure - 10 EMDR - 7 other
Bisson	2005	Cochrane Review 33 RCTs	Adults Traumatic Stress symptoms for 3+ months	Trauma-Focused CBT (TFCBT) N = 22 studies Stress management N = 7 studies Group CBT N = 4 studies EMDR N = 12 studies Other therapies N = 4 studies

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Hentrick (1) 2010	- Valid & reliable clinician rated scales E.G. Clinician administered PTSD Scale; Short PTSD Rating Interview etc	- No sig. difference between combination and psychological therapies SMD =2.44; 95% CI: -2.87 to 7.35 (1 study) - No sig. difference between combination and pharmacotherapy SMD = -4.70; 95% CI: -10.84 to 1.44 (1 study)
Roberts (2) 2009	- Standardised mean differences in continuous PTSD symptom score	- Trauma-focused CBT within 3 months of traumatic event sig. better than Wait list/TAU for patients who were symptomatic for PTSD/acute stress disorder - Weak effect for those pts. Not symptomatic
Benish (3) 2008	- Symptom measures E.G. Impact of Life Events Scale; State: Trait Anxiety Inventory; PTSD Symptom Scale	- All treatments superior to TAU - No sig. differences between different psychological therapies
Bisson (4) 2007	- Clinician rated & self-assessment of -PTSD - anxiety -dep. - withdraw rate	- TFCBT sig. improvement VS TAU for PTSD symptoms (SMD = -1.70 95% CI: -2.17 to -1.24) (9 studies) and some improvement for anxiety (SMD = -0.99 95% CI: -1.20 to -0.78) (11 studies) and depression (SMD = -1.26 95% CI: -1.69 to -0.82) (14 studies) - EMDR improvement VS TAU for PTSD (SMD = -1.13 95% CI: -2.13 to -0.13) (5 studies); anxiety (SMD = -1.20 95% CI: -1.54 to -0.85) (5 studies) and depression (SMD – 1.48 95% CI: -1.84 to -1.12)
Bradley (5) 2005	Standardised measures including - Impact of Events Scale, BDI;	- All treatments Effect size – Active Treatment VS Wait list control (SMD = 1.11) - Active treatment VS Supportive Control SMD = 0.83 - 56% of pts (intent to treat group) and 67%

	CAPS; BAI; MMPI; HDRS etc	of completers no longer met criteria for PTSD post-treatment - 6 month follow-up (10 studies, n = 308) Effect Size pre-post treatment 62% below diagnostic rates for PTSD
Bisson (6) 2005	- Clinician rated traumatic stress symptoms - Self-report traumatic stress; depressive & anxiety symptoms	- TFCBT sig. better than TAU (SMD = -1.40; 95% CI: -1.89 to -0.91) (14 studies, n = 649); better than Other Therapies (SMD = -0.81; 95% CI: -1.19 to -0.42) (3 studies, n= 120) - Group TFCBT sig. better than TAU (SMD -0.72; 95% CI: -1.14 to -0.31) - Stress Man. Sig. better than TAU (SMD = -1.14 95% CI: -1.62 to -0.67 (3 studies, n= 86) - EMDR sig. better than TAU (SMD = -1.51; 95% CI: -1.87 to -1.15) (5 studies, n = 162) - EMDR sig. better than Other Therapies (SMD = -0.84; 95% CI: -1.21 to -0.47) (2 studies, n = 124)

Research recommendations arising from the above studies

Authors of the above research recommended a range of further research priorities relating to comparison of different intervention - for example to compare exposure therapy and cognitive restructuring (2); to compare combination treatments (6); to compare active treatments rather than wait list controls (5) and to complete research on the relative efficacy of EMDR (6), family and couples-based interventions and community intervention (2). Hentrick also recommended the completion of research with PTSD groups who are homogenous with regard to the nature of the trauma experienced and to complete larger RCTs with consistent measures of PTSD and broader range of outcomes, including functional outcomes. Finally, both Roberts and Bisson encouraged consideration of adverse effects and tolerability of treatment and to consider what modifications are required to traditional psychotherapies to reduce drop-out rates.

Severe Mental Illness - Schizophrenia

5.6.1.Overview of Disorder

Schizophrenia is one of the terms used to describe a major psychiatric disorder or cluster of disorders that alters an individual's perception, affect and behaviour.

> "I walked into (the psychiatrist's office) as Don and walked out a schizophrenic... I remembered feeling afraid, demoralised, evil!. The diagnosis becomes a burden... you are an outcast in society. It took me years to feel OK about myself again. The killing of hope... I think schizophrenia will always make me feel like a second class citizen... I am labelled for the rest of my life"
>
> Johnston, 2008
>
> "To get a better understanding why I hear voices and see things, and to understand where they are coming from."
> "[Therapy] enabled me to be more positive, address issues from my past, gave me an outlet to express my emotions, made me think about how I react to events and gave me techniques that enable me to cope with negative situations."
> While we are waiting

Typically, the problems of schizophrenia are preceded by a "prodromal" period which is characterised by deterioration in personal functioning (e.g. memory and concentration problems, social withdrawal and uncharacteristic behaviour etc). The prodromal period is typical followed by an acute phase marked by positive symptoms of hallucinations, delusions and behavioural disturbances (such as agitation and distress). Following resolution of the acute phase, symptoms may disappear or the individual may be left with residual negative symptoms such as those noted in prodromal stage. After the initial episode, 14 – 20% of individuals will recover fully and 50%+ will have episodic rather than continuous difficulties.

A significant percentage of people will continue to experience long-term impairment in their personal, social and occupational lives. Such disabilities are the result of recurrent episodes of continuous symptoms, unpleasant side effects of treatment and stigma and social exclusion associated with the diagnosis. Approximately 10%

of people with schizophrenia will commit suicide. It is noted that 75% of people with schizophrenia will experience relapse, partly due to discontinuation of medication. As such de- Haan et al (2003) advocates for an early involvement and progressive therapeutic programme incorporating social and psychological intervention as well as medication to be an important factor in realising long-term outcomes.

Individuals with schizophrenia experience high levels of physical health difficulty e.g. increased rate of cardiovascular disease, circulatory conditions and endocrine disorders and to have lifestyle risk factors for disease and mortality. For example individuals have a high smoking rate (thought to be due to the therapeutic effect of nicotine on psychotic symptoms and the enhanced metabolism of anti-psychotic drugs in smokers) and to have increased risk of weight gain (partly attributed to anti-psychotic medication).

Schizophrenia is the most common form of psychotic disorder with a lifetime prevalence of between 0.4 to 1.4%. The prevalence rate for adult schizophrenia for men and women are similar, although the mean age on onset for women is approximately 5 years later than men, with a second smaller peak in onset after the menopause. While an exact cause of schizophrenia is not known, it is considered that individual's posses different levels of vulnerability to schizophrenia determined by a combination of biological, social and psychological factors which become activated when an environmental threat is present.

5.6.2. Research Evidence Base

(a) NICE Guideline Recommendations

Schizophrenia; Core Intervention for the Treatment and Management of Schizophrenia in Adults in Primary and Secondary Care - *National Clinical Guideline number 82 (2010)*

NICE guidelines recommend that all individuals with first presentation of psychotic symptoms should be urgently referred to secondary Mental Health Services for assessment. It is recommended that all individuals with schizophrenia be offered cognitive behaviour therapy which can commence in the acute phase or later stages of the illness. It is noted that family intervention should also be implemented concurrently and that art therapy should be considered particularly to elevate negative symptoms of the illness. It is noted that counselling, supportive psychotherapy, adherence therapy and social skills training should not be offered routinely to people with schizophrenia. It is noted that CBT should be delivered on a one to one basis for at least 16 planned sessions and that family based intervention should include the person with schizophrenia where practical. Art therapy should be provided as a group intervention unless difficulties with engagement indicate otherwise.

Following the initial acute episode, consideration could be given to the provision of psychoanalytic or psychodynamic psychotherapy to assist the individual understand their illness and their interpersonal relationships. Assertive outreach teams should also be provided for people who have difficulties engaging with the Service.

NICE Guidelines Research Recommendations

1. An adequately powered RCT should be conducted to investigate the clinical and cost effectiveness of arts therapies compared with an active control (for example, sham music therapy) in people with schizophrenia.
2. An adequately powered RCT should be conducted to investigate the most appropriate duration and number of sessions for arts therapies in people with schizophrenia.

3. An adequately powered RCT should be conducted to investigate the most appropriate duration and number of sessions for CBT in people with schizophrenia.
4. An adequately powered RCT should be conducted to investigate CBT delivered by highly trained therapists and mental health professionals compared with brief training of therapists in people with schizophrenia.
5. Research is needed to identify the competencies required to deliver effective CBT to people with schizophrenia.
6. An adequately powered RCT with longer-term follow-up should be conducted to investigate the clinical and cost effectiveness of cognitive remediation compared with an appropriate control in people with schizophrenia.
7. An adequately powered RCT with longer-term follow-up should be conducted to investigate the clinical and cost effectiveness of vocational rehabilitation plus cognitive remediation compared with vocational rehabilitation alone in people with schizophrenia.
8. Research is needed to identify the competencies required to deliver effective family intervention to people with schizophrenia and their carers.
9. For people with schizophrenia from black and minority ethnic groups living in the UK, does ethnically adapted family intervention for schizophrenia (adapted in consultation with black and minority ethnic groups to better suit different cultural and ethnic needs) enable more people in black and minority ethnic groups to engage with this therapy, and show concomitant reductions in patient relapse rates and carer distress
10. A pilot RCT should be conducted to assess the efficacy of contemporary forms of psychodynamic therapy when compared with standard care and other active psychological and psychosocial interventions.
11. Family intervention
    For people with schizophrenia from BME groups living in the UK, does ethnically adapted family intervention for schizophrenia (adapted in consultation with BME groups to better suit different cultural and ethnic needs) enable more people in BME groups to engage with this therapy, and show concomitant reductions in patient relapse rates and carer distress?
12. Cultural competence training for staff
    For people with schizophrenia from BME groups living in the UK, does staff training in cultural competence at an individual level and at an organisational level (delivered as a learning and training process embedded in routine clinical care and service provision)

improve the service user's experience of care and chance of recovery, and reduce staff burnout?

(b) What works for whom?: critical review of psychotherapy research (Roth & Fonagy, 2005)

There is a clear evidence base for the application of

- Family Intervention Programmes

There is an emerging evidence base for

- Cognitive Therapy for Delusions
- Psycho-education in combination with psychological interventions

5.6.3. Rapid Review Findings – Schizophrenia

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Bird	2010	11 RCTs	N = 1708pts - Early psychosis (within 5 years first presentation); - Local mental health services; - Inpatient & outpatient	Early Intervention for psychosis - Early Intervention = 4 trials n = 800 - CBT = 4 trials n = 620 - Family Intervention = 3 trials n = 288 Duration of intervention – up to 2 years
Lawrence*	2006	5 controlled trials	N = 255pts 16+ years; diagnosis schizophrenia or schizo-affective	Group based CBT Varied duration – - 6 X weekly sessions - 16 X biweekly sessions - 12 X weekly

			disorder; attending mental health service	sessions
Roder *	2006	29 Controlled studies	N = 1367 >18 + years 68% male; Mean age = 35 years; Inpatient & outpatient settings	Effectiveness of IPT in adults with schizophrenia - Mean treatment period = 17.2 weeks (95% CI: 11.8 to 22.6) - Mean no. therapy sessions = 44.4 (95% CI: 37.7 to 54) - Average drop-out rate for treatment = 14.7% (95% CI: 7.8 to 21.6)

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Bird (1) 2010	- Risk of relapse - Standardised measures of symptoms	- Early Intervention VS Standard Care (4 studies, n= 800) – less likely to relapse 35.2% VS 51.9%, p = 0.67); be hospitalised 28.1% VS 42.1%, p = 1.00); reduction in positive symptoms SMD = -0.21; 95% CI: -0.42 to –0.01, p = 0.29; Reduction in negative symptoms SMD = -0.39, 95% CI: -0.57 to –0.20, p = 0.38); lower rate of discontinuation (27% VS 40.5%); more likely to maintain contact with team (91.4% VS 84.2%) - CBT VS Standard Care (4 studies, n = 620) – At 2 year follow-up reduction in positive symptoms SMD = -0.60, 95% CI: -0.79 to –0.41, p = 0.44); reduction in negative symptoms SMD = -0.45, 95% CI: -0.80 to –0.09, p = 0.07); no change in rate of admission to hospital - Family Intervention (3 studies, n = 288) Less likely to relapse/admitted to hospital (14.5% VS 28.9%, p = 0.40); 2 year follow-up (1 study) lower risk of relapse 23.1% VS 30.8%, p = 0.38

Lawrence (2) 2006	Standardised Q'aires – Brief Social Phobia Scale; Social Interaction Anxiety Scale; Brief Symptom Inventory; Global Symptom Index; Quality of Life Q'aire; Alcohol Use Disorders Identification Test; BDI; BAI	- CBGT Vs Psycho-education – large sig. improvement on positive, negative symptoms and general psychopathy for both treatments - CBGT VS Wait List – sig. improvements (57%) in anxiety scores than Controls (11%) - CBGT VS TAU – inconsistent findings regarding frequency of auditory hallucinations
Roder (3) 2006	Expert Ratings & self-reports of symptomatology E.G. Global Assessment of Functioning Scale; psychological tests (e.g. Attention Stress Test)	- IPT VS Placebo Attention & Standard Care - Global Therapy Outcome – sig. higher ES Qb = 12.59, p = <0.01) - - Psychopathy, neurocognition & psychosocial functioning – sig. improvement (Qb > 9.34, p < 0.1 - IPT Inpatients VS Control Group – sig. better inpatient Qb = 9.33, p <0.01; marginally better outpatients Qb = 3.65, p <0.1 - No difference reported between expert rating and self-f report - Largest effect noted for neurocognitive functioning - major component of IPT - No difference in effect dependent upon patients variables or settings (inpt/outpt)

Research recommendations arising from the above studies

Roder advocated for the completion of further RCTs with regard to clients with schizophrenia and Lawrence recommended further RCTs which compared Group Based CBT with active control groups in addition to 'treatment as usual' groups. Lawrence also recommended trials to identify the training requirements for staff to deliver Group based CBT and to consider the effectiveness of psycho-education as a low-intensity treatment for schizophrenia.

Severe Mental Illness – Bipolar Disorder

5.7.1. Overview of Disorder

Bipolar disorders are perceived in the context of a spectrum of disorders that range from marked and severe mood disturbance to milder mood variations. DSM- IV makes a distinction between bipolar I disorder in which the patient suffers full-blown manic episodes most commonly interspersed with episodes of major depression, and bipolar II disorder in which the patient experiences depressive episodes with less severe manic symptoms. Cyclothymia is also an associated condition in which the patient has recurrent hypomanic episodes and sub clinical episodes of depression.

> "There is a particular kind of pain, elation, loneliness and terror involved in this kind of madness. When you're high it's tremendous. The ideas and feelings are fast and frequent like shooting stars.... but somewhere that changes. The fast ideas are too fast and there are far too many; overwhelming confusion replaces clarity. Everything previously moving with the grain is now against ... you are irritable, angry, frightened, uncontrollable ... It will never end, for madness carves its own reality"
>
> Kay Redfield Jamison
>
> "When you get a complete sense of blackness or void ahead of you, that somehow the future looks an impossible place to be, and the direction you are going seems to have no purpose, there is a word despair which is a very awful thing to feel".
> "You can't reason yourself back into cheerfulness any more than you can reason yourself into an extra 6 inches in height"
>
> Stephen Fry

Individuals of bipolar disorder more frequently experience bouts of depression which follow a similar pattern to individuals with major depressive episodes. For example people suffer depressed mood, profound loss of interest in activity, fatigue, weight loss or gain, psychomotor slowing etc. There is also an elevated risk of suicide with approximately 17% of patients with bipolar I disorder and 24% of patients with bipolar II disorder attempting suicide during the course of their illness (Rihmer and Kiss, 2002). It is estimated that 0.4% of patients with bipolar disorder

will die by suicide annually which is a vastly greater percentage than the international population average of 0.017%.

In addition to depression, individuals with bipolar disorder experience bouts of mania and hypo-mania. It is estimated that patients experience manic symptoms approximately 10% of the time (Post et al 2003). Patients in the acute manic phase exhibit expansive grandiose affect which may be predominantly euphoric or irritable. Individuals in this state may display inflated self-esteem and disinhibition. As the mania advances individuals may experience racing thoughts or ideas that can be difficult to piece together into a coherent picture, and severe distractibility, restless and difficulty concentrating. Individuals often experience psychomotor agitation and decreased need for sleep. Appetite may increase and the individual often displays an increase in impulsive risk taking behaviour with a high potential for negative consequences. Libido may also rise and the individual may develop psychotic symptoms such as grandiose delusions or mood-congruent hallucinations or persecutory delusions.

Some individuals with bipolar disorder will experience states whereby they experience a mixture of manic and depressive symptoms co-occurring e.g. the individual experiences morbid depressed affect with over activity and racing thoughts. Bipolar disorder by definition follows a cyclical pattern. Some individual with bipolar disorder will have discrete episodes which occur rarely with full recovery in-between episodes, while others may experience more frequent episodes and fail to recover in-between these. A subset of patients experience rapid cycling bipolar disorder where they experience at least 4 cycles of the illness within a 12 month period, and other individuals may experience “ultra-rapid cycling” variant where they will experience mood fluctuations within the course of a week or a single day.

Individuals with rapid cycling illness tend to be more treatment resistant and display more severe levels of depression and co-occurring substance misuse.

Epidemiological studies consistently report a lifetime prevalence of bipolar I disorder to be approximately 1% and bipolar II disorder to be approximately 0.6%. The first episode for individuals with bipolar disorder typically occurs before the age of 30 years. Bipolar I disorder occurs equally in both men and woman, although there is some evidence to suggest bipolar II disorder is more common in females. There is also evidence of increased risk of bipolar disorder in people from black and ethnic minority groups and in individuals with a learning disability. While the exact cause of bipolar disorder is unknown genetic factors, neuro-hormonal abnormality, and structural brain differences have been implicated in the likely aetiology of this condition. Differential diagnosis to consider include schizophrenia, schizo-affective disorder, organic brain syndromes and metabolic disorders. Individuals with bipolar disorder are also noted to have a high frequency of co-morbidity - most frequently anxiety, substance abuse disorders and personality disorders, and increased risk of physical illness such as diabetes and heart disease.

For most people bipolar disorder is chronic and recurrent, with individuals experiencing on average ten episodes over the course of their illness. For individuals with recurrent illness the length of time between episodes may shorten over time and/or episodes may begin more abruptly.

5.7.2. Research Evidence Base

(a) NICE Guideline Recommendations

Bipolar disorder: The management of bipolar disorder in adults, children and adolescents in primary and secondary care

National Clinical Practice Guideline Number 38 (2006).

NICE guidelines advocate the use of psychological therapy following recovery from an acute episode. This therapy should be an individually designed programme and be a minimum 16 sessions over 6-9 month period. The therapy should include:

- Psycho-education about the illness
- Monitoring mood to detect early warning signs & implement strategies to prevent progression into a full-blown episode
- Enhance general coping strategies

Family-focused intervention should be offered where the individual has regular contact with family members or carers. Intervention should include psycho-education about the illness, strategies to improve communication and problem solving skills.

For individuals who have comorbid substance misuse difficulties psychosocial interventions should be considered. This intervention could include psycho-education and motivational enhancement.

Combined Cognitive Behaviour Therapy and medication should be considered for individuals with chronic depressive symptoms and combined psychological treatment and medication for those with comorbid anxiety disorders.

NICE Guidelines Research Recommendations

1. A randomised controlled trial should be conducted to investigate the efficacy and cost effectiveness of an adding an antidepressant (SSRI) to an existing antimanic agent for patients with bipolar disorder in partial remission from a depressive episode.
2. A sequenced set of randomised controlled trials should be undertaken to investigate the efficacy and cost-effectiveness of antidepressants, in the presence of an antimanic medication, in treating bipolar depression.
3. A randomised placebo-controlled trial should be undertaken to assess the efficacy and cost effectiveness of adding an atypical antipsychotic to existing prophylactic medication (either lithium or valproate) in bipolar I disorder and bipolar II disorder.
4. A randomised placebo-controlled trial should be undertaken to assess the efficacy and cost effectiveness of an atypical antipsychotic plus antimanic agent versus antimanic agent alone in children and adolescents in remission from bipolar disorder.
5. A randomised controlled trial should be undertaken to compare the effectiveness of collaborative care for adolescents and adults with bipolar I or bipolar II disorder with treatment as usual in primary and secondary care.

(b) What works for whom?: critical review of psychotherapy research (Roth & Fonagy, 2005)

There is a limited but promising evidence base developing for the application of

- Psycho-education
- Cognitive Behaviour Therapy aimed at relapse prevention and management of depressive symptomatology, combined with cognitive techniques aimed at stabilising lifestyle
- Interpersonal and Social Rhythm Therapy
- Family Interventions – particularly where there are high levels of expressed emotions observed

5.7.3. Rapid Review Findings – Bipolar Disorder

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Crowe*	2010	35 studies – experimental design	Adults – 18+ years N = 4149	Psychosocial interventions as adjunct to medication - Group psycho-education – 10 trials - Family interventions – 10 trials - Interpersonal Social Rhythm Therapy –3 trials - CBT – 7 trials - Chronic/systematic care – 3 trials - Intensive therapies – 2 trials
Beynon*	2008	12 Randomised & Non-randomised trials	Adult patients Type I and Type II Bipolar disorder; Stabilised after acute episode	Psychosocial Intervention to prevent relapse - CBT - 5 studies - Family therapy – 2 studies - Psycho-education 3 studies - Care Management – 1 study - Integrated Group therapy – 1 study - Pharmacotherapy

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Crowe 2010)	Standardised scales including SADS-C; Family attitudes Inventory; Brief Psychiatric	- Evidence to support use of group psycho-education and interpersonal social rhythm therapy in reducing mood states - Some evidence to support use of family interventions - CBT – Good short-term results - Systematic/Chronic care model – reduced

	Rating Scale; Med. Adherence Scale	length of manic episodes but not depressive episodes
Beynon 2008	- Relapse rate (hospitalisation or additional treatment) - Adverse events	- CBT VS TAU (5 studies) –Relapse OR = 0.37; 95% CI: 0.13 to 1.03 – not. sig. – in favour of CBT) - Depression – CBT fewer depressive episodes (OR = 0.32; 95% CI: 0.13 to 0.74) - Family Therapy (2 studies) – Relapse – no sig. difference between Family Therapy and Psychosocial Therapy (OR = 0.6; 95% CI: 0.19 to 1.89) - Family Therapy VS Crisis Management – no sig. differences for relapse (OR = 0.46, 95% CI: 0.19 to 1.11); Manic relapse (OR = 0.93; 95% CI: 0.31 to 2.82); depression relapse (OR = 0.41; 95% CI: 0.15 to 1.12) - Group Psycho-education VS unstructured group meeting – group psycho-education statistically superior for relapse, mania and depression - Care Management VS TAU – no sig. difference

Research recommendations arising from above studies

Crowe and Beynon both advocated for further RCTs in the area of Bipolar Disorder. Crowe also recommended the use of more consistent outcome measures and that detailed analysis of the components of treatment be undertaken to determine which elements are effective for different client groups.

Physical Health Conditions

5.8.1 Overview

Chronic or long-term health conditions such as diabetes, heart disease and chronic obstructive pulmonary disease affect 15.4 million people living in the UK. For such individuals adjustment to their condition can lead to psychosocial problems and depression. For example Egede (2007) noted that people with chronic health conditions were 3 times more likely to be depressed and Moussaui (2007) in a WHO study identified prevalence of depression in people with 2 or more chronic health conditions to be 23% in comparison to 3.2% in healthy controls. Depression for people with long-term health problems can increase their level of disability, exacerbate pain and distress and adversely affect outcome e.g. increased levels of health-related mortality and suicide.

> "Since having multiple sclerosis I cannot cope with what life throws at me. As well as that kind of physical disease my mental state reflects on my physical state. I like being able to walk, control my bladder and being independent. Counselling for me is as essential as food, breathing, water – the lot."
>
> While we are waiting – We need to talk campaign

5.8.2. Research Evidence Base

NICE Guideline Recommendations

NICE Guideline: Depression in adults with a chronic physical health problem: treatment and management *NICE Clinical Practice Guidelines Number 91 (2009)*

These guidelines recommend the availability of individual guided self-help, group based peer support and computerised cognitive behaviour therapy for individuals with mild-moderate depression or persistent sub-threshold depression.

For individuals with moderate-severe depression and/or inadequate response to low intensity interventions the following should be considered:

- Group based CBT
- Individual CBT
- Behavioural Couples Therapy
- Combination Therapy e.g. individual CBT plus antidepressant medication

NICE Guidelines Research Recommendations

1. What is the clinical and cost effectiveness of combined medication and CBT compared with antidepressants or CBT alone for patients with moderate to severe depression and a chronic physical health problem?
2. What is the clinical and cost effectiveness of group peer support and group-based exercise when compared with treatment as usual for patients with mild to moderate depression and a chronic physical health problem?
3. What is the clinical and cost effectiveness of behavioural activation compared with antidepressant medication in the treatment of moderate to severe depression in patients with a chronic physical health problem?
4. What is the relative efficacy of counselling compared with low-intensity cognitive and behavioural interventions and treatment as usual in patients with depression and a chronic physical health problem?

5.8.3. Condition-specific recommendations

In addition to the generic guidance regarding depression, 3 common physical health conditions were reviewed – Diabetes; Cancer & Pain

(a) Overview - Diabetes

Diabetes is a complex metabolic condition which has life-long health responsibilities. Diabetes occurs when the amount of glucose in the blood is too high and the body cannot metabolise it properly. There are 2.8 million people in the UK with a diagnosis of diabetes and a further 850,000 people who are undiagnosed.

There are two main types of diabetes: -

Type 1 diabetes which develops when the insulin-producing cells in the body have been destroyed and the body is unable to produce any insulin. This accounts for 5% – 15% of all cases of diabetes.

Type 2 diabetes which develops when the body can make some insulin but not of sufficient quantity or effectiveness to meet the body's needs. Type 2 diabetes usually occurs in people age 40+ years although has become increasingly more common in children and younger people.

In addition to the above common forms of diabetes some pregnant women will develop gestational diabetes during the second or third trimester. This condition normally resolves when the baby is born, although individuals will have a 30% risk of developing type 2 diabetes thereafter.

In addition to managing blood sugar levels, individuals with diabetes are also at increased risk for heart disease, blindness, and kidney disease and so need to regulate diet, medication regimes, weight management and foot care on a daily basis. Not surprisingly, diabetes diagnosis can often lead to anger, denial, fear and depression. These emotional states usually resolve as the individual adjusts to the diagnosis. However these emotional states can become chronic and lead to significant mental health problems most frequently depression and eating disorders

Rapid Review Findings - Diabetes

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Van der Feltz-Cornelis	2010	15 RCTs	1724 pts Type 1 and Type 2 diabetes Generally age 50+years Include China 3 studies; USA 4 studies; Germany 1 study)	Psychotherapy (5 studies) Pharmacotherapy (7 studies) Collaborative care for depression (3 studies)
Harkness	2010	73 RCTs	Type 1 and Type 2 diabetes Specialist settings Pts mostly 50+ years 22% poor diabetic control 10% baseline depression	Psychosocial interventions that impact on mental and physical health - 53% focused lifestyle – education-based CBT - 29% mental health – CBT, social support; relaxation - 18% both Mean length of follow-up 6-8 months
Alam	2009	35 RCTs	- 2517 patients - Mean time since diagnosis = 5.3 years - Mean sample size = 105.3 Location - 3 UK - 17 USA - 7 China - 4 Australia	Effect of psychological interventions on glycaemic control and psychological status in Type 2 diabetes - 11 studies CBT - 7 studies counselling - 11 studies relaxation - 4 studies psychotherapy - 2 studies problem solving - Mean Intervention duration = 13.7 weeks

			- 1 Canada, Japan, Spain	- 13 trials delivered by generalist; 16 by psychological specialist; 6 unspecified - Mode 16 studies individual therapy 14 group therapy 5 combined therapy
Wang	2008	3 RCTs	788 patients Primary Care (2 studies) Age = 53-71 years	- Non-pharmacological treatment of depression on glycaemic control in Type 2 diabetes - CBT (1 study) – 10 sessions - Collaborative Care (2 studies) – Medication + problem solving therapy – average 6-8 sessions + monthly phone call
Winkley	2006	29 RCTs - 16 RCTs children - 13 RCTs adults	Children N = 543; sample size mostly <100; duration of diabetes Mean = 5.6 years Adult N = 516; duration of diabetes = 14.1 years	Effect of psychological intervention on glycaemic control in Type 1 diabetes Children Studies - 7 CBT - 6 Counselling - 3 Family systems Adult studies - 9 CBT - 4 Psychoanalytic - 2 Counselling

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Van der Feltz-Cornelis (1) 2010	- Validated questionnaires RE depressive symptomatology & severity - Glycaemia control	- Overall decrease in depressive symptoms SMD = -0.512; 95%; CI –0.633 to –0.390 - Combined – outcomes - Collaborative care SMD = -0.292; 95% CI: -0.429 to –0.155 - Pharmacotherapy SMD = -0.467 95%: CI: -0.665 to –0.270 - Psychotherapy SMD = -0.581 95% CI: -0.770 to –0.391

Harkness (2) 2010	Standardised measures - anxiety - depression - mental health Blood glucose levels	- Psychosocial interventions modest - improvement in - glucose levels SMD = -0.29; 95% CI: -0.37 to –0.211 - mental health SMD = -0.16; 95% CI: - 0.25 to –0.07 - Combined intervention significantly more effective than lifestyle alone - Results poorer for elderly patients (>50years) - Results better for those with poor baseline control
Alam (3) 2009	Blood glucose levels	- Improvement in glycaemic control (19 trials) SMD = -0.32; 95%; CI: -0.47 to –0.16 Provided by psychological specialist 0.57% (SMD = -0.36; 95% CI: -0.61 to 0.12) Provided by generalist 0.51% (SMD = -0.27; 95% CI: -0.50 to 0.04)
Wang (4) 2008	- Standardised measures including – BDI; SCL-20; Patient Health Q'aire; etc - Remission	- Effect size for improvement in depression ranged from 0.23 to 0.40 - Odds of improvement VS Controls - at 6 month follow-up = 1.62 – 3.79 - Long-term effect of improvement (at 12 months) OR = 1.47; 95% CI: 0.90 to 2.31) - Limited effects on glycaemic control
Winkley (5) 2006	- Continuous measure of psychological distress - % of glaciated haemoglobin	- Glycaemic Control – Children SMD = -0.35; 95% CI: -0.66 to –0.04; p = 0.03 - Glycaemic control – Adults SMD = 0.17; 95% CI: -0.45 to 0.10; p= 0.22 - Absolute decrease in haemoglobin Children 0.48%; Adults 0.22% - Psychological distress (10 trials, n = 417) Children SMD = -0.46; 95% CI: -0.83 to –0.10; p = 0.013 Adults SMD = -0.25; 95% CI: -0.51 to 0.01; p = 0.059

Research recommendations arising from the above studies

Research recommendations include the completion of RCTs with multi-centre participation to facilitate access to larger samples comparing different interventions

(1); the completion of more UK-based RCTs(3) and to assess if the integration of diabetes management and depression care would achieve better outcomes(4).

(b) Overview – Cancer

All organs and tissues in the body are made of cells which constantly become old and are replaced by new cells. When new cells are growing and dividing they can become abnormal and grow out of control into a tumour. Tumours can be benign (i.e. they do not spread to other parts of the body) or can be malignant. A malignant tumour consists of cancer cells which have the ability to spread beyond the original area through the bloodstream or lymphatic system. When cancer cells reach a new area they continue to divide and form new tumours known as secondary cancers or metastasis. There are more than 200 different kinds of cancers – the most common types are:

- Carcinomas – e.g. breast, lung, prostate and bowel cancer – which account for 85% of all cancers
- Leukaemias and lymphomas – which occur in bone morrow and lymphatic system – account for 6.5% of cancers
- Sarcomas – which occur in muscle, bone or fatty tissue
- Brain tumours

It is estimated that half of all men and one third of all women will develop cancer during their lifetime. Early detection is important for treatment and survival.

The emotional impact of a cancer diagnosis is devastating and characterised by shock, disbelief, anger, anxiety, depression and difficulty performing activities of daily living. These effects are often activated at each transitional stage of the disease –

beginning treatment, recurrence, treatment failure and disease progression. These emotional responses can impact upon relationships and quality of life and can create adjustment difficulties which can compromise patient survival (Dale, 2010).

Edwards (2008) reported that approximately 16 –25% of newly diagnosed cancer patients experience depression or adjustment disorder and Bleuker (2000) reported that up to 30% of women with breast cancer will develop anxiety or depression within the first year following diagnosis.

Rapid Review Findings - Cancer

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Dale *	2010	11 RCTs & Controlled studies	N = 1100, 18years+ 77% male Prostate Cancer (65%) Head and neck cancer (18%)	Post-treatment psychosocial and behaviour change for men with cancer - Group interventions - Psycho-educational (46%) - CBT (46%) - Hypnosis (8%) - Follow-up varied 0 – 12 months
Edwards	2008	Cochrane Review 5 RCTs	N = 511 Advanced breast cancer	Psychological Intervention for women with metastatic breast cancer Interventions - 2 CBT (Range 8-35 weekly sessions) - 3 Support-Expressive Group Therapy
Richardson	2007	6 RCTs - 5 children	N = 206 pts	Hypnosis for nausea & vomiting in cancer chemotherapy

		- 1 Adult		Interventions - Hypnosis - Attention Control - TAU - Cognitive coping - Distraction - Supportive Therapy
Ernst	2006	15 RCTs	N = 1808 pts Women diagnosed with breast cancer at any stage	Alternative Therapies for Breast Cancer Psychosocial interventions - Support - Self-hypnosis - Counselling - Peer support - CBT - Relaxation - Group Therapy
Smith*	2005	3 RCTs & 7 uncontrolled trials	N = 545 pts - 288 (RCT) - - 277 (Uncon.)	Mindfulness Based Stress Reduction - MBSR VS Control Group (3 RCTs) – weekly MBSR prog. 6-10 weeks + audiotape/home work
Chow	2004	8 RCTs	N = 1062 pts - 4 breast cancer - 1 = malig. melanoma - 1= gastro. Cancer - 2 other cancers	Psychosocial interventions improve survival rates - Group Therapy (1.5 hrs weekly supportive group - Individual psychotherapy - CBT & self-hypnosis
Uitterhoeve*	2004	10 Controlled studies (13 trials)	Adult cancer; Age range 8 – 77years, Average = 31 years; mean sample size range = 8-158pts; advanced stage IV cancer = 89%	Psychosocial interventions for advanced cancer with aim to improve quality of life Interventions - Behaviour therapy (including combination BT & Support) – 12 trials - Counselling – 1 trial - 4 trails group format - 10 trails = multi-session

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Dale (1) 2010	- Quality of Life - Functioning scores - Psychological distress, anxiety & depression	- CBT group – improvements in quality of life, depression, anxiety and pain. - CBT – some improvements in sexual function, fatigue, psychological distress and physical impairment - Hypnosis – significant improvements for anxiety, depression and psychological distress - Psycho-education – improvements in self-efficacy, conflict, distress, stress management and diet& exercise – varied outcomes
Edwards (2) 2008	- Survival rates - Profile of mood states	- No evidence of impact on survival rates at 1 year (0.86; 95% CI 0.32 to 2.3); 5 years (0.83; 95% CI: 0.36 to 1.98) or 10 years (0.78; 95% CI: 0.28 to 2.37) - Improvement in psychological functioning - immediate and short-term for CBT group – not maintained at 6 months follow-up - Supportive-Expressive Group Therapy – reduced pain experience (0.75; 95% CI: 0.63 to 0.86, p <0.00001) and improved outcome on Impact of Event Scale (0.25, p = 0.03)
Richardson (3) 2007	Observation & self-report of nausea & vomiting	- 3 out of 4 studies in meta-analysis reported positive effect size for hypnosis in comparison to control - Most effective when compared to TAU (d = 0.99); CBT (d = 0.18) and when followed by therapist contact (d = 0.43)
Ernst (4) 2006	- Survival - Quality of life - Medication use - Oxford Pain Validity Scale	- No intervention demonstrated as effective alternative cure - 2 out of 9 studies suggested psychosocial interventions may have improved survival rates
Smith (5) 2005	Self report Q'aires e.g. HADS; POMs; QoL30; DBI; STAT	- Improvement in mood, sleep quality and reduced stress - Dose-response effect was observed between practice of MBSR and improved outcome
Chow (6) 2004	Survival rates	- No statistically significant difference in survival rates at 1 year (RR 0.94, 95% CI: 0.72 to 1.22; p = 0.6); 4 years (RR = 0.93, 95% CI: 0.77 to 1.13, p = 0.5)

Uitterhoeve (7) 2004	Standardised Q'aires – Profile of mood states; HADS; Rotterdam symptom checklist; Death Anxiety Scale, etc	- Positive effect on Quality of Life demonstrated in 12 trials – particularly improvement in depression and feelings of sadness - Positive effect in physical functioning (2 out of 5 trials) - Significant improvement in coping (5 out of 6 trials) - Significant reduction in anxiety (7 trials) and depression (6 trials)

Research recommendations arising from the above studies

A number of authors identified the need to complete larger, more rigorous RCTs in order to achieve sufficient power calculations to make firmer conclusions regarding research findings (3) (5). Recommendations were also identified regarding research for particular populations – for example single men (1), children (3) and carers supporting people with cancer (2). Chow also recommended that research screen all participants before inclusion and to only include individuals who are symptomatic. Finally Edwards recommended the use of protocols which would explore the meaning of living and dying with cancer and Uitterhoeve advocated research which considered existential and spiritual components of quality of life.

(c) Overview – Pain

Pain is 'an unpleasant sensory or emotional experience associated with actual or potential tissue damage or described in terms of such damage' (World Health Organisation).

There are 3 main types of pain:

- Short –term pain – acute pain
- Long-term pain – persistent or chronic pain

- Intermittent or recurrent pain

Many acute pains act as a warning system to advise that something is wrong and that action is needed. For individuals with chronic painful conditions and/or persistent pain, the pain does not serve a useful function.

Over time the experience of pain can affect the range and level of activities a person can undertake, ability to work, sleep patterns and relationships with others. This in turn leads to an increased risk for the development of mental health difficulties, most notably depression and anxiety.

Rapid Review Findings - Pain

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Eccleston	2009	Cochrane Review 40 RCTs	4781 Patients non-malignant & chronic pain (excluding headache) Adults 18+ Pain – 3+ months duration	Effectiveness of psychotherapies on pain, disability and mood. CBT and BT compared to TAU and Active Control (AC)
Hoffman*	2007	22 Controlled clinical trials	Adults 3+ months duration of pain	Psychological Intervention for noncancerous low-back pain Study sample size 20 – 293; Mean = 79.42 SD = 59.2
Dixon	2007	27 RCTs	Adults 3409 patients Mean age = 58.9 years 69.5% female	Psychosocial interventions for arthritis pain management including - CBT/pain coping skills (23); biofeedback (1);

				stress management (5) emotional disclosure (1); hypnosis (1); psychodynamic therapy (2) - Mean number treatment sessions = 8.5 Range = 4 – 20 (SD = 3.8) - Control Groups – TAU (14); education /information (9); Wait list (5) attention control (2) medical (1)

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Eccleston (1) 2009	Multiple measurement tools for - pain experience - negative mood - disability	- CBT VS Active Control Disability (12 studies, n = 728pts) Sig. difference z = 2.20; p <0.05 - CBT VS TAU Pain experience (23 studies, n = 1199) Sig. difference; z = 2.71 p <0.05 - Behavioural Therapy VS TAU Pain experience (9 studies, n = 430 pts) Sig. difference z = 3.03; p<0.05 No other significant differences observed
Hoffman (2) 2007	IMMPA Recommendations RE: - Pain intensity - Emotional functioning - Pain interference - Health related quality of life	- **All psychological intervention VS all Control Treatment superior for** - pain intensity (p<0.05; d = .4) - pain interference (p< 0.05; d = .23) - health related quality of life (p<0.05; d = .41) **Treatment not superior for:** - Depression (p>.10) - **CBT VS Wait List** Post-treatment pain (p< 0.01; d = .62) Quality of life & depression (p > .10) - **Self Regulatory Treatment VS Wait List** Post-treatment pain (p <0.001; d = .75) Depression (p< 0.05; d = .81)

Dixon (3) 2007	- Visual Analogue Scale – pain measure - Anxiety Q'aire - Depression Q'aire - Physical functioning measure	- **All psychological intervention** Pain - ES = 0.177 95% CI: 0.259 to 0.094 Sig. Lower pain ($p < 0.01$) Anxiety ES = 0.282 95% CI: 0.455 to 0.110 Sig. lower anxiety ($p < 0.01$) (5 studies) Depression ES = 0.208 95% CI: 0.363 to 0.052 Sig. lower Depression ($p < 0.01$) (7 studies) Psychological Disability ES = 0.249; 95% CI: 0.396 to 0.101 Sig. lower psychological disability ($p < 0.01$) (6 studies) Active coping ES = 0.716; 95% CI: 0.490 to 0.941 – sig. higher levels of coping ($p < 0.01$) (5 studies) Pain self-efficacy ES = 0.184; 95% CI: 0.031 to 0.336 – sig. high self-efficacy ($p < 0.05$) (4 studies) Physical functioning ES = 0.152; 95% CI: 0.242 to 0.062 – lower physical disability ($p < 0.01$) (11 studies) Fatigue ES = 0.070; 95% CI: 0.261 to 0.121) no sig. change (p = 47) (2 studies)

Research recommendations arising from the above studies

Eccleston made a number of recommendations regarding future research which advocate increased specification of the aims, methods and outcome measures used in studies rather than a generic protocol which is applied to all patients in the treatment category. Eccleston also recommended the use of longer treatment protocols to address the chronic nature of pain. Both Hoffman and Dixon

recommended the use of a broader range of outcome measures and to implement measures to confirm treatment fidelity(1).

5.9.1 Psychotherapy for multiple presentations

Research is often completed for individual client groups regarding specific conditions. This attempt to achieve highly selected, diagnostically homogenous populations enhances the internal validity of the study, although compromises its external validity as it does not represent the actual experience of clinical practice.

In completing the current rapid review 5 research projects were identified which reviewed the effectiveness of psychological therapies for mixed client groups and/or multiple presentations within the same client group. For 2 of these reports the researchers completed separate analysis of the sub-groups while in the remaining 3 reports the results were aggregated across the clinical subgroups. The research projects are outlined in the table below.

Psychotherapy for multiple presentations

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Lynch	2010	21 Controlled studies - Schizophrenia = 7 trials - Depression = 10 trials - Bipolar Disorder = 4 trials	Adults (a) Schizophrenia – acute & chronic pts N = 979 (b) Depression N + 881 (c) Bipolar Disorder N = 487	(a) Schizophrenia - CBT Intervention – duration 5 weeks to 9 months Comparisons - CBT VS Controls; Supportive Counselling = 5; Befriending = 1; Group Psycho-education = 1; Recreational therapy =1; social activity therapy = 1 (b) Depression – 10 trials; CBT VS Control

				Psychological Intervention = 6 trials CBT VS Pill Placebo = 4 trials (c) Bipolar Disorder - CBT VS TAU – 4 trials
Chiesa	2010	52 RCTs & Controlled studies	Adults with - major depression or bipolar disorder - social phobia - cancer - heart disease - chronic pain - rheumatoid arthritis - fibromyalgia	Mindfulness Meditation - Major Depression or Bipolar Disorder = 6 studies - Social Phobia = 1 study - Cancer = 4 studies - Heart Disease = 2 studies - Chronic Pain = 2 studies - Rheumatoid Arthritis = 4 studies - Fibromyalgia = 2 studies
Gold	2009	15 Studies - 8 - RCTs - 3 – CCTs - 4 Uncontrolled	N = 691 - Psychotic Disorders = 456 - Non-psychotic disorders e.g. depression = 235	Music Therapy for Serious Mental Disorders - 10 studies Inpatient - 5 studies Outpatient Music Therapy 1-6 times per week, over 1-6 months Group settings = 10
Leichsenring	2008	23 studies - 11 RCTs - 12 Observational studies	N = 1053 pts with - Personality disorder - Complex anxiety & depression - Multiple mental disorders - Chronic mental disorders	Long term Psychodynamic Psychotherapy - Patients attending at least 1 year or 50 sessions; - Mean number of sessions = 151; - Mean duration of therapy = 58.79 weeks; -Mean length of follow-up = 93.23 weeks

Smith	2007	31 studies - RCTs = 18 - Controlled = 6 - Uncontrolled = 7	N = 1845 Female = 73%; average age = 37.4 years; Patient groups include anxiety, depression, cancer pts, students, volunteers, psychiatric pts	Outcome studies on impact of spiritual intervention on psychological variables - 22 Studies group therapy - 8 Studies individual therapy - 1 Study unspecified Average number of sessions = 10.3 (Range 1- 26) Interventions - 52% CT/CBT - 13% humanistic - 22% non-psychological - 13% combination Spiritual components - Teaching spiritual principles – 45%; prayer –42%; sacred texts – 32%; imagery or meditation- 32%

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Lynch(1) 2010	(a) symptom scores for positive & negative symptoms of schizophrenia (b) Depression – Hamilton Depression Rating Scale or BDI, or both (c) Relapse	(a) Schizophrenia – CBT VS Control ES = -0.08; 95% CI: -0.23 to 0.08, p = 0.34; No difference between acute & chronic patients; Positive symptoms ES –0.19, 95% CI: -0.37 to –0.02, p = 0.03; Negative symptoms ES = -0.02, 95% CI: -0.22 to 0.18 (b) Depression HAMD Q'aire – 9 studies ES = -0.28, 95% CI: -0.45 to –0.12 p = 0.001; BDI Q'aire – 8 studies; ES = -0.27, 95% CI: -0.45 to –0.08, p = 0.004; Relapse rate OR = 0.53, 95% CI: 0.40 to 0.71, p<0.001 (c) Bipolar Disorder – OR for relapse was insignificant OR = 0.78, 95% CI: 0.53 to 1.15, p = 0.22
Chiesa (2) 2010	- Psychological variables – e.g. stress; anxiety;	- Major Depression or Bipolar Disorder – MBCT plus TAU – sig. superior to TAU in reducing depression relapses - MBCT VS Standard Group Based CT for

	depression - Physical variables e.g. experience of pain, blood pressure etc - Relapse rates	Social Phobia (1 Study) – response and remission rates higher for MBCT - MBSR in Cancer – decrease stress symptoms; dose-effect response – improvements maintained at 6 months - Heart Disease (2 low-quality studies) – decrease in diastolic blood pressure - Chronic Pain – 2 studies; more effective in pain reduction and psychological distress than TAU - Rheumatoid Arthritis – significant effectiveness in reducing distress and improving well-being (especially in pts with concomitant major depression) - Fibromyalgia – superior to active support in improving overall quality of life; coping with pain, anxiety, depression and somatic complaints
Gold (3) 2009	Continuous measure mental state – standardised measures e.g. SCL-90R; Brief Symptom Inventory etc	- Music Therapy VS Standard Care - Music therapy when added to standard care – significant effects on global mental state, level of symptoms of anxiety and depression; functioning and musical engagement - Greater improvement with more sessions irrespective of diagnosis
Leichsenring (4) 2008	- Standardised symptom measures e.g. Millian SCL-90; DBI; Social Functioning; Social Adjustment Scale; Work Ability Index, etc	LTPP VS Psychotherapy (including CBT, CAT, BDT, Family Therapy, STPP) 8 studies - Overall Outcome rp = 0.60, 95% CI: 0.25 to 0.81, p = 0.005; Target problems rp = 0.49, 95% CI: 0.08 to 0.76, p =0.04; Personality Functioning rp = 0.76, 95% CI: 0.33 to 0.93, p = .02 - Overall effectiveness – pre-post treatment (20 Trials) SMD = 1.03, 95% CI: 0.84 to 1.22, p <0.001; Follow-up (8 trials) SMD = 1.25; 95% CI: 1.00 to 1.49, p <.001 - Patients with Personality Disorders (6 trials) SMD = 1.16, 95% CI: 0.82 to 1.50, p < 0.001 - Patients with Chronic Mental Disorders (9 trials) SMD = 1.05, 95% CI: 0.61 to 1.48, p <.001 - Patients with multiple mental disorders (11 trials); SMD = 1.09, 95% CI: 0.83 to 1.36, p <.001 - Patients with complex depression and anxiety disorders (7 trials) SMD = 1.13, 95% CI: 0.74 to 1.51, p =<.001 -

Smith (5) 2007	Standardised measures & reports of well-being & mental health symptoms	- Overall Effect Size of Spiritual Interventions = SMD = 0.56, 95% CI: 0.43 to 0.70, p <0.001 - No difference for gender or age comparisons - No difference for study design or methodology

Research recommendations arising from the above studies

Given the diversity of studies included in the above category it is not a surprise that there is a broad range of research recommendations - often relating to the specific intervention in question. For example Gold recommended research utilising different types of music therapy with different client groups in order to extend the evidence base for this intervention, and Leichenring recommended evaluating the effectiveness of long-term psychodynamic psychotherapy with clients with complex mental disorders and comparison studies for the effectives of LTPP versus CBT or IPT. Finally general recommendations regarding the evaluation of longer term effects of intervention (2) and the direct and indirect costs of different treatment modalities (4) were identified.

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Section 6 - Older Adults

6.1 Psychological Treatment for Affective Disorders in Older People

There were 10 papers identified and full papers obtained which looked at psychological therapies in those with affective disorder. Nine of these papers looked at depression – 4 meta-analyses (Cuijpers 2006; Cuijpers 2009; Pinquart 2006; Pinquart 2007) and 5 systematic reviews (Frazer 2005; Hill 2006; Mackin 2005; Peng 2009; Wilson 2009). A further systematic review was identified which looked at interventions for depression in older adults with osteoarthritis (Yohannes 2010) but the full paper for this was not obtained within the timescale for the review. One systematic review looked at treatment for late-life bipolar disorder (Aziz 2005). This paper did not look only at psychological treatment but did search for evidence for psychotherapy in older adults with bipolar disorder.

Table 1 – Systematic Reviews and Meta-analyses of Psychological Therapies for Affective Disorders in Older Adults

First Author	Year	Study Types	Population	Interventions
Aziz	2005	Systematic reviews, RCTs, meta-analyses, cohort studies, case-control studies, case series and case reports.	Adults 60 years and over with bipolar affective disorder (a few articles on adults aged 50-55 also included)	Psychotherapy
Frazer	2005	Meta-analyses, RCTs, other studies if these were unavailable	Adults aged 60 and over with major depression or a high level of depressive symptoms	CBT, Dialectic Behavioural Therapy, Problem-solving therapy, Psychodynamic psychotherapy, Reminiscence and life therapy, Bibliotherapy

Mackin	2005	RCTs, follow-up studies	Adults aged 60 years and older	CBT, Interpersonal psychotherapy, Reminiscence therapy, life review therapy, brief dynamic therapy, psychoeducation
Cuijpers	2006	Randomized control trials	Adults aged 50 years and older	CBT, Interpersonal psychotherapy, Life review, Behaviour therapy, Reminiscence, Psychodynamic psychotherapy, bibliotherapy
Hill	2006	Outcome studies, systematic reviews, surveys, analysis of case notes, mixed method studies, qualitative studies	Adults aged over 50 years	Generic counselling, CBT, Reminiscence, Other
Pinquart	2006	Controlled studies	Adults mean age 60 years or older	CBT, visual imagery group therapy, Interpersonal psychotherapy, Psychodynamic therapy, Reminiscence
Pinquart	2007	Controlled studies	Adults mean/median age 60 years or older	CBT, Reminiscence, Psychodynamic, Psychoeducation, Supportive
Frederick	2007	All types of study designs. Duplicates, reviews, meta-analyses, studies with inpatient or institutionalized subjects or conducted in a university based	Adults with mean age 60 years or older	Group psychotherapy targeting depression, individual psychotherapy targeting depression, psychotherapy targeting mental

		centre were excluded.		health
Cuijpers	2008	Control studies	Older adults (comparison study with younger adults)	CBT, other psychotherapy, bibliotherapy, group therapy, individual therapy
Peng	2009	Randomized control trials	Adults aged 55 years and older	CBT and Reminiscence therapy
Wilson (Cochrane review)	2009	Randomized control trials	Adults aged 55 years and older	CBT, psychodynamic therapy, interpersonal therapy, supportive therapies

Table 2 – Outcome Measures Used and Key Findings from Systematic Reviews and Meta-analyses in Psychological Therapies for Affective Disorders in Older Adults

First Author	Year	Outcome Measures	Key findings
Frazer	2005	Not specified	Sound evidence for CBT in the treatment of depression, but not for stroke patients; Sound evidence for reminiscence and life review; Evidence for dialectic behavioural therapy as an adjunct to antidepressant treatment; Some evidence for interpersonal therapy, problem-solving therapy, psychodynamic psychotherapy; Some evidence for bibliotherapy as a treatment for mild to moderate depression.
Mackin	2005	Measures of depressive symptoms, measures of functioning, Geriatric	Compelling evidence for CBT; Not enough evidence for

		Depression scale.	interpersonal therapy as a stand-alone treatment; Small evidence base for brief dynamic psychotherapy for major depression; Reminiscence therapy is potentially useful but requires further research.
Aziz	2006	Evidence relating to older adults with bipolar disorder not found	There is no evidence base for psychological therapies in the older adult population with bipolar disorders due to lack of research. Evidence is available for CBT in the younger adult population
Cuijpers	2006	Hamilton Rating Scale of Depression, Structured Clinical Interview for DSM-IV, Geriatric Depression Scale, Minnesota Multiphasic Personality Inventory-Depression Scale, Schedule of Affective Disorders, Centre for Epidemiological Studies – Depression scale, Hopkins Symptoms Checklist, Hospital Anxiety and Depression Scale, Inventory of Depressive Symptomatology,	Mean effect size d=0.72 (0.59-0.85) p=0.004. There was a significant effect found for psychological therapy. No significant difference between CBT and other therapies (problem-solving therapy, reminiscence, supportive therapy, goal-focused group psychotherapy, interpersonal therapy, bibliotherapy, individual therapy, group therapy).
Hill	2006	Not specified	Psychotherapy is effective. CBT is effective. Reminiscence therapy is probably effective.
Pinquart	2006	Hamilton Depression Scale, Montgomery-Asberg Depression Scale, Beck Depression Inventory, Geriatric Depression Scale, Clinical Global Impression severity and improvement scales.	Psychotherapy effect size -0.83 (-0.98to -0.69) p<0.001. CBT effect size -0.88 (-1.05to -0.71)p<0.001. CBT had a greater effect on clinician rated depression than other forms of psychotherapy.
Pinquart	2007	Geriatric Depression Scale, Beck Depression Inventory, Hamilton Depression Rating Scale,	Behavioural therapy 0.96 (0.77-1.15)p<0.001, Cognitive therapy 1.06(0.64-1.47)p<0.001,

		Centre for Epidemiological Research Depression Scale, Zung Depression Scale, structured clinical interviews	CBT 1.12(0.76-1.48)p<0.001, Reminiscence1.00(0.73-1.27)p<0.001, Psychoeducation0.70 (0.44-0.96)p<0.001, Psychodynamic therapy 0.76(0.31-1.21)p<0.001, Interpersonal therapy 0.14 (-0.16- 0.43) not significant, miscellaneous eg music therapy 0.52 (0.34-0.69)p<0.001. Effects of CBT and reminiscence are large. Effects of other interventions are medium to small.
Frederick	2007	Depression rating scores including the Multiple Affect Adjective Checklist.	Psychotherapy found to be of mixed effectiveness.
Cuijpers	2008	Beck Depression Inventory, Hamilton Depression Rating Scale	CBT d=0.65 (0.42-0.88)p<0.001 moderate effect, Other psychotherapies d=0.76 (0.36-1.17)p<0.001moderate effect, Individual therapy d=0.86 (0.39-1.32)p<0.001 large effect, Group therapy d=0.56 (0.28-0.83)p<0.001 moderate effect, Bibliotherapy d=0.73 (0.33-1.13)p<0.001 moderate effect. No significant differences between older and younger adults.
Wilson	2008	Hamilton Depression Rating Scale, Geriatric Depression Scale, Montgomery and Asberg Rating Scale, Clinical Global Impression scale, Schedule for Affective Disorders Change Interview, Zung Depression Scale, Hopkins Symptom	CBT more effective than waiting list WMD -9.85 (-11.97to -7.73). No significant difference between CBT and psychodynamic psychotherapy.

		Checklist Depression Scale, depression subscale of Brief Symptom Inventory, Life satisfaction index (used in one trial),	
Peng	2009	Depression rating scales: 20-item Symptom Checklist, Hamilton Rating Scale for Depression, Beck Depression Inventory, and Geriatric Depression Scale.	CBT SMD -1.34 (-1.89to -0.79)p<0.00001. Reminiscence SMD -0.64 (-1.04to-0.25)p=0.001 Psychotherapy SMD -1.00 (-1.04to -0.59) p<0.00001. CBT and Reminiscence more effective than placebo. No significant difference between CBT and reminiscence.

Discussion

Results indicate that overall CBT has the most evidence available to support its use in the treatment of older people with depressive illness. It is also the treatment modality which has been studied the most. Studies are not consistent in affirming superiority to other types of psychotherapy and authors noted the relative lack of research amongst older people with depression and the lack of good quality, larger sized studies into psychological treatment modalities other than CBT. There is an emerging evidence base which seems to be in favour of the use of reminiscence therapy for older people with depression and it performed well against CBT when compared in meta-analysis (Peng 2009; Pinquart 2007) however it still lags behind CBT in terms of the size and strength of the evidence base. Psychodynamic psychotherapy is evaluated as having some evidence for effectiveness but the Cochrane review (Wilson 2008) cautions that these trials were small. They directly compared psychodynamic psychotherapy and CBT. No trials were suitable for the Cochrane review which compared psychodynamic psychotherapy with controls.

Other psychological therapies gain some evidence for efficacy including bibliotherapy and interpersonal therapy however the evidence supporting these treatments does not have the strength of that supporting CBT.

6.2 Psychological Treatment for Anxiety Disorders in Older People

5 papers were identified looking at research into the psychological treatment of anxiety disorders in older adults. 2 meta-analyses (Hendricks 2008; Thorp 2009) and 3 systematic reviews (Ayers 2007; Hill 2006; Owens 2005). One of the papers (Owens 2005) looked specifically at the treatment of PTSD in veterans. The other papers all looked at anxiety disorders as a group or generalized anxiety.

Table 3 – Systematic Reviews and Meta-analyses of Psychological Treatment for Anxiety Disorders in Older Adults

First Author	Year	Study Types	Population	Interventions
Owens	2005	Case series and Case study	Veterans with PTSD age 55 and above	Supportive group therapy, EMDR
Hill	2006	Outcome studies, Systematic reviews, surveys, analysis of case notes, mixed method studies, qualitative studies	Adults aged 50 years and above	Generic counselling, CBT, Reminiscence, Other
Ayers	2007	Randomized control trials	Adults aged 55years and older	CBT, supportive therapy, Relaxation training
Hendricks	2008	Randomized control trials	Adults with a mean or median age of 60 years or older	CBT
Thorp	2009	Follow-up studies, comparison studies, controlled studies	Adults aged 55 and over or adults with a mean age of 65 years or older	CBT, Relaxation training, CBT with RT.

Table 4 – Outcome Measures and Key Findings of Systematic Review and Meta-analyses in Psychological Treatments for Anxiety Disorders in Older Adults

First Author	Year	Outcome Measures	Key Findings
Owens	2005	SCL-90-R, IES, informal reports of functioning, Geriatric Depression Scale, Subjective Units of Distress	Reduction in GDS with EMDR, Supportive group therapy led to informal reports of improvement but no change on other measures
Hill	2006	Not specified	CBT is effective over short and longer term.
Ayers	2007	Spielberger State-Trait Anxiety Inventory, Worry Scale, Hamilton Anxiety Rating Scale, Penn State Worry Questionnaire, Beck Anxiety Inventory, Symptom Checklist-90, Fear Questionnaire, GAD severity ratings, "average percentage of the day spent worrying" from the Anxiety Disorders Interview Schedule	Support for CBT, 1 study supported Cognitive therapy, 2 studies found cognitive therapy less effective than relaxation training and pseudo relaxation or supportive therapy. Support for relaxation training. Support for supportive therapy but it is not more effective than CBT or relaxation training
Hendricks	2008	Beck Anxiety Inventory, Hamilton Anxiety Rating Scale, Penn State Worrying Questionnaire, Worry Domain Questionnaire, Beck Depression Inventory, Centre for Epidemiological Studies Rating Scale for Depression	CBT v waiting list -0.57 (-0.97to -0.17) P<0.005(worrying). -0.54 (-0.94to -0.14)p<0.008 (depression) CBT v active control -0.54 (-1.13to 0.04) P=0.07, -0.35 (-0.64to -0.05) p<0.02 (depression)
Thorp	2009	Beck Anxiety Inventory, Hamilton Rating Scale for Anxiety, Penn State Worry Questionnaire, Anxiety Disorders Interview Schedule, Symptom Checklist-90 Revised, Structured	CBT-RT Mean effect size anxiety measures 1.18(0.78-1.59), depression measure 0.78(0.38-1.17) CBT+RT Mean effect size anxiety measures 0.86 (0.63-1.08), depression

		Clinical Interview for the DSM, Worry Scale, Fear Questionnaire, Agoraphobia Cognitions Questionnaire, Body sensations questionnaire, Texas Panic Related Phobia Scale, Mobility Inventory for Agoraphobia, Beck Depression Inventory, Hamilton Rating Scale for Depression, Geriatric Rating Scale, Centre for Epidemiological Studies Depression Scale, Zung self-rating Depression Scale.	measures 0.77(0.55-1.00) RT Mean effect size anxiety measures0.91 (0.68-1.24), depression measures 0.77 (0.26-1.27) RT and CBT both effect treatments for anxiety.

Table 5 – Systematic Reviews and Meta-analyses into Psychological Therapies for Older People for which only abstracts available

First Author	Year	Study Types	Population	Interventions	Key Findings
Yohannes	2010		Older adults with depression and osteoarthritis	CBT, patient education, exercise therapy, integrated depression management	Some evidence that all interventions, except patient education, have short term benefits for depression with OA. No evidence available on longer term benefits
Lunde	2009	Comparison studies	Adults aged over 60 years with	CBT	CBT is effective for self reported

			chronic pain		pain experiences. Effect size 0.47. No significant effects on depression, physical functioning or medication use.

Discussion

The evidence available suggests that CBT and relaxation training are both effective treatments for anxiety in older people. The majority of evidence comes from papers looking at generalized anxiety disorder or anxiety disorders as a single group. The evidence in PTSD is limited as the studies included in the review (Owens 2005) consisted of case series and a case study so it is difficult to recommend treatment on the basis of this. It is clear more research is needed in the old age population in this area and for other specific anxiety disorders such as OCD and phobias.

The evidence regarding the use of CBT for pain was limited to a single meta-analytic review the full text of which was not obtained within the time available to complete the review. This suggested CBT had some benefit for older people with chronic pain in terms of subjective pain experience.

Recommendations for Future Research

- There is a lack of research into psychological therapies for older people suffering from bipolar disorder and psychotic illnesses. Research is also needed into other mental illnesses which are not specified in the literature such as obsessive compulsive disorder, agoraphobia and other phobias, post-traumatic stress disorder.

- Much of the research base looks at groups of adults of a lower age than those looked after by old age services in the UK. This is not necessarily directly applicable to the over 65s. Many of the papers have a lower age limit of 55 years or an average age of 60 years. There is insufficient research looking at the over 65s specifically and a great need for research in the older-old age groups such as those over the age of 75.
- There is a lack of research looking at the efficacy of psychological therapy in elderly people who have physical health co-morbidities. This reduces it applicability in real life as many older people seen by services also have multiple physical health concerns.
- The literature also recognises a need for research into psychological therapies for those with mild cognitive impairment and co-morbid mental illness.
- There is a need for research into longer term outcomes for all psychological treatments for mental illness in older people.
- More evidence is needed for brief psychodynamic therapy in older people in mild depression and dysthymia.
- More evidence is needed for reminiscence therapy – particularly in the frail elderly and older adults with mild cognitive impairment.
- Research is needed addressing the needs of those who have difficulty accessing therapy because of mobility problems. Research is needed into telephone-based therapy and bibliotherapy for older people.
- Much of the outcome measures focus on measures of symptoms of depression and anxiety. More focus is needed on the impact on functional outcomes.

- Research is required to determine the optimal duration of psychotherapy in this age group

6.3 Psychological Interventions in Dementia

8 studies were identified which met the criteria including the NICE guidelines in dementia (2007). Another paper was identified for which the full paper was not obtained (Olazaran 2010). Only 2 of the papers were meta-analyses (Kong 2009; Sitzer 2006). The others were systematic reviews (Logsdon 2007; O'Connell 2007; O'Connor 2009; Woods 2009; Verkaik 2005; NICE guidelines 2007). 4 of the papers (Kong 2009; Logsdon 2007; O'Connor 2009; Verkaik 2005) looked at the non-pharmacological treatment of behaviour symptoms or agitation in dementia. One paper looked at reality orientation in patients with dementia in acute settings (O'Connell 2007), one looked at cognitive training (Sitzer 2006), the Cochrane review looked at reminiscence therapy in dementia (Woods 2009). The NICE guidelines looked at all therapeutic interventions for people with dementia.

Table 6 – Systematic Reviews and Meta-analyses of Psychological Interventions in Dementia

First Author	Year	Study types	Population	Intervention
Woods (Cochrane review)	2005	RCTs and quasi-randomized trials	Adults with dementia	Reminiscence therapy
Verkaik	2005	Randomized control trials, controlled clinical trials	Adults with dementia	Psychosocial methods for treating depressed, aggressive or apathetic behaviours: behaviour therapy, supportive psychotherapy, validation/integrated emotion-oriented care, multi-sensory stimulation/Snoeezelen, Simulated Presence therapy, Reminiscence, Gentle Care, activities of Daily

				Living, Reality Orientation, Skills training, Activity/Recreational therapy, art therapy, psychomotor therapy
Sitzer	2006	Controlled trials	Adults with Alzheimer's dementia	Cognitive training
Logsdon	2007	Randomized control trials	Older adults with dementia	Psychological treatments of disruptive behaviours in dementia: Snoeezelen, bright light therapy, pet therapy, aromatherapy, music or white noise therapy, educational interventions, behaviour therapy, individual counselling, progressively lowered stress threshold.
O'Connell	2007	Studies of reality orientation including systematic reviews	Adults with dementia in acute care settings	Reality orientation
NICE guidelines	2007	RCTs and where needed studies lower levels of evidence included	Adults with dementia	Reality orientation, validation therapy, reminiscence, behavioural interventions, environmental modifications, sensory enhancement, relaxation, multi-sensory stimulation, psychodrama, staff training, combination therapies
O'Connor	2009	RCTs	Adults with dementia and behaviour symptoms	Psychosocial treatments of behaviour symptoms: aromatherapy, ability-focused carer education, preferred music, muscle relaxation training,

				behaviour management training, multi-sensory stimulation, validation therapy
Kong	2009	RCTs and randomized cross-over trials	Adults with dementia and agitation	Non-pharmacological interventions for agitation: sensory interventions, social contact, caregiver training, combination therapy, behavioural therapy

Table 7 – Outcome Measures and Key Findings of Systematic Reviews and Meta-analyses of Psychological Therapies in Dementia

First Author	Year	Outcome Measures	Key Findings
Woods (Cochrane review)	2005	MMSE, CAPE, Autobiographical memory interview – personal semantic schedule, Holden Communication Scale, Social Engagement Scale, Behaviour rating scale, MDS-ADL, Problem Behaviour Rating Scale, Life Satisfaction Index, QOL-AD, WIB, Geriatric Depression Scale, GHQ-12, Relatives Stress Scale, Staff Knowledge,	The evidence base for Reminiscence Therapy is largely descriptive and RCTs are small and of low quality. Further development and research is needed.
Verkaik	2005	Behavioural Assessment Scale for Intramural psychogeriatrics , Dutch Assessment scale for elderly patients, Cornell scale for Depression, Cohen-Mansfield Agitation Inventory – subscales verbally and physically aggressive behaviours, Multidimensional Observation Scale for Elderly Subjects, Modified Beck Depression Inventory, Geriatric Rating Scale, INTERACT-short,	Some evidence that multi-sensory stimulation reduces apathy in latter phases. Limited evidence that behaviour therapy, pleasant events and behaviour therapy-problem solving reduce depression. Limited evidence that psychomotor therapy groups reduce aggression.

		Revised Memory and Behaviour Problem Checklist, BDI, verbal responses during session	
Sitzer	2006	Face-Name, Continuous Performance Test, Object Memory, Modified Making Change Task, Balance Checkbook, Informant Questionnaire Cognitive Decline in the Elderly, Centre for Epidemiological Studies Depression Scale, Bayer Activities of Daily Living Scale, Revised memory and Behaviour Problems Checklist, Hopkins Verbal Learning test, Brief Visual-Spatial Memory Test – Revised, Boston Naming Test, Trail-making Test, Activities of daily living questionnaire, WMS-R, WAIS-R, Quality of Life – Patient, Verbal series attention test, Controlled Oral Word Association Test, Tapping test, Geriatric Depression Scale, CERAD, Everyday memory questionnaire, Immediate memory composite, Delayed memory composite, Verbal fluency composite, Problem solving composite, Memory and behaviour problems checklist, Benton test, Grunberger Verbal Memory Test, Nuremberg Aged Persons Inventory, Hamilton depression scale, Depression status inventory, Scale of well-being, Dementia Rating Scale, General memory composite, Non-verbal memory, Verbal Memory, Geriatric Coping schedule,	Small effects of cognitive training in some domains (e.g. visual learning and motor speed) and larger effects in other domains (e.g. executive function, verbal and visual learning, ADLs). Overall mean weighted effect size for overall cognition (0.50), performance based ADLs (0.69),

		CERAD, CAPE, Recall and Recognition trials, caregiver reports, Rivermead behavioural memory test, Time to complete ADLs.	
Logsdon	2007	Disruptive Behaviour Scale, daily frequency of repetitive vocalizations, Revised Memory and Behaviour Problems Checklist, Rating Scale for Aggressive Behaviour in the Elderly, Behavioural Pathology of Alzheimer's Disease rating scale, Spontaneous Behaviour Interview, Relative Stress Scale, Clinical Global Assessment of Change, Behavioural Rating Scale in Dementia, Cohen-Mansfield Agitation Inventory, Agitated Behaviour in Dementia Scale, Memory and Behaviour Problems Checklist.	There is evidence for progressive lowered stress threshold and behaviour management interventions for the treatment of behaviour disturbance in community-dwelling people with dementia. Other techniques had a lack of evidence due to lack of methodological rigour or replication.
O'Connell	2007	Measures of cognition, communication and behaviour – instruments used not specified in the review	Reality orientation has the potential to improve care for people with dementia but has not been adequately studied
NICE guidelines	2007	NPI:WMD, CMAI:WMD, SMD, Agitated behaviour rating scale, CAPE behaviour rating scale, BMD – active/ disturbed subscale, Problem behaviour rating scale, Holden communication scale, Social engagement scale, withdrawal :SMD, Depression scales eg Cornell Scale for Depression in Dementia, Hamilton Rating Scale for Depression, Subjective improvement in self-	See summary below.

		reported mood and quality of life eg Geriatric Depression Scale, anxiety eg RAID, MMSE.	
O'Connor	2009	CMAI, Pittsburgh Agitation Scale, direct observation, Rating scale for Aggressive Behaviour in the Elderly, Clinical Global Impression of Change, BRAD.	Some evidence that aromatherapy, playing preferred music, one-to-one social interaction, simulated family presence and muscle relaxation therapy reduce behavioural symptoms better than controls
Kong	2009	Cohen-Mansfield Agitation Inventory, RAS, Observed Agitation Scale, Agitation Visual Analogue Scale, Scale for Observation of Agitation in Persons with Dementia, Staff Observation Log, Short form-CMAI, Behave-AD, Agitated Behaviour Inventory for Dementia, Disruptive Behaviour Scale,	Sensory interventions had moderate efficacy in reducing agitation in dementia. No other type of non-pharmacological intervention showed efficacy.

Table 8 – Systematic reviews and Meta-analyses regarding psychological interventions in dementia for which only abstract available

First author	Year	Study types	Population	Intervention	Key findings
Olazaran	2010	RCTs	Adults with Alzheimers dementia	Non-pharmacological interventions for dementia	Grade A recommendation for caregiver interventions, Grade B for cognitive training, cognitive stimulation, behavioural interventions, multi-component interventions

					(not-specified)

NICE Guidelines for management of Psychological Therapies in Dementia. Recommendations:

- People with mild-moderate dementia of all types should be given the opportunity to participate in a structured group cognitive stimulation programme.
- People with dementia and non-cognitive symptoms and behaviour that challenges should have the following approaches considered: aromatherapy, multi-sensory stimulation, therapeutic use of music and/or dancing, animal assisted therapy.
- People with dementia and comorbid depression or anxiety should have cognitive behavioural therapy considered. Reminiscence therapy, multi-sensory stimulation, animal assisted therapy and exercise should also be available for people with dementia and comorbid anxiety and depression.

Discussion

Results indicate that there is some evidence for the use of cognitive stimulation for cognitive symptoms of dementia. For behavioural symptoms of dementia and agitation the strongest, most consistent evidence for non-pharmacological interventions is for aromatherapy and multi-sensory stimulation. There is also a small amount of evidence in favour of simulated family presence, playing preferred music, one to one social interaction and muscle relaxation. There is also some evidence for behaviour therapy to progressively lower stress threshold. Reality orientation and

reminiscence therapy are also potentially useful however require further studies before they can be confidently recommended as the evidence available comes from very small or descriptive studies. All studies reviewed comment on the difficulty of a lack of high quality research in the area of psychological therapies in dementia and a need for larger scale studies with RCT methodology. However there is evidence that the quality of research in the area is rising when compared with papers found for a systematic review in 1999 (O'Connor 2009).

The NICE guidelines have been criticised for focusing on those treatments which are most easily amenable to study in a randomized control trial – the effect being in the case of psychological therapies in mental illness, for the recommendations to put CBT before other therapies. NICE guidelines have a huge impact upon funding and the availability of therapies and training of therapists, and its recommendations affect the lives of millions. There are no separate NICE guidelines for mental illness in the old age population. This could potentially disadvantage this population if decisions on funding of treatments and training of therapists for this age group are based upon guidelines which use evidence mainly from the general population. In the case of the NICE dementia guidelines there was a great deal of criticism of the restrictions on the prescribing of anti-dementia medications when the guidance was first issued. Criticisms levelled included that the outcome measures looked at did not sufficiently capture quality of life effects and effects upon carers, gave insufficient weight to patient and professional experience and did not take full account of the complexities of funding for dementia care. Some of these criticisms could potentially apply to recommendations for psychological therapies. Concerns were also expressed that

the guidelines did not address the needs of those who do not fall into the most common types of dementia.

Dementia is a heterogenous and complex condition with multiple potential causes which affect its course, presentation, prognosis and treatment. The most powerful research studies tend to focus upon those with Alzheimers and vascular dementias as they are the most common. However treatments for these conditions are not necessarily easily generalizable to those with other dementias – eg, Dementia of Lewy Bodies, Picks disease, Huntingdons disease, prion disease, dementia due to autoimmune conditions or HIV. The result found in this review may not apply equally to dementias due to less common causes.

Multiple outcome measures are also used in the studies of treatments of dementia. This variability between studies makes it more difficult to compare one therapy against another and more difficult to conduct metanalyses.

Recommendations for Future Research

- More research is needed into cost effectiveness of non-pharmacological interventions for people with dementia and behaviour that challenges.
- Research studies tend to put people with dementia into a homogenous group. Studies need to be carried out which look at effectiveness of treatments at different stages of dementia.
- The systematic reviews and meta-analyses comment on the lack of high quality research into psychological therapies in dementia. Research in the area needs to have good methodological rigour applied and larger studies.

- Future studies should look at functional outcomes as well as cognitive measures and symptom scores. Performance-based tests are more reliable than informant report for this. Few studies used performance-based measures of functional outcome.
- There is a high degree of variability in outcome measures used. Agreement on high quality outcome measures which could be used more frequently would aid future reviews and meta-analyses and comparison between studies.
- There needs to be more research looking at the longer term outcomes of psychological interventions, both for cognition and for behavioural and psychiatric symptoms in dementia.
- Studies are needed regarding the effects of interventions in varying environments – at home, in residential care and in acute inpatient units.
- There is a need for further RCTs of reminiscence therapy which follow a clear treatment protocol.
- Negative effects of interventions need to be reported in studies to help identify which groups are more likely to suffer these and to aid appropriate targeting of interventions.
- Studies of psychological interventions for agitation and behavioural symptoms in dementia need to specify more closely the degree, type and time period of the symptoms being treated.
- It would be helpful if future studies included information on refusal rates and drop-outs.
- Research is needed into the effectiveness of interventions at times when difficult behaviours are most evident.

- More research is needed into the longer-term effectiveness of psychological interventions for agitation and behaviour problems in dementia.

Barriers to Research into psychological therapies in Older People

- Research into psychological therapies for dementia is affected by issues of capacity and consent. This complicates, and can limit, recruitment into studies and may affect ethical approval
- Studies of longer term follow up in older people is complicated by higher rates of mortality and morbidity in this group which can lead to low rates of completed follow up. Mortality and morbidity will particularly be higher in those with dementia, especially those in whom the dementia has progressed so far as to produce behavioural symptoms
- Study design and recruitment are affected by the high frequency of co-morbidity with physical health conditions which can affect ability to participate in therapy and outcomes of therapy.
- People in this age group are often prescribed multiple medications for physical health conditions which can affect ability to engage with therapy and affect the outcomes of therapy.
- High quality research with methodological rigour and larger sample size involves the resource of a high level of expertise in research, as well as time and funding to conducting such research.

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Section 7 - Children and young people

Depression

7.1 Overview of Disorder

Depression refers to a group of symptoms and behaviours which trigger changes in mood, thinking and activity sufficient to cause impairment in personal and/or social functioning. Mood changes typically include sadness and/or irritability accompanied by a loss of pleasure in usual activities. Cognitive changes lead to inefficient thinking and negative self-focus and self esteem, and behavioural changes include a reduction in energy levels, apathy, aches and pains and reduction in activity levels.

> "I was 13 when I first became depressed, and I didn't know what was wrong with me"
>
> "I didn't feel right. I was so sad all the time. I found school really difficult. I found it difficult to talk to people & I lost my confidence"
>
> "What do you care anyway – you'd be better off without me"
>
> Mood Matters,
> Aware Defeat Depression

Children and young people may also report feelings of guilt and may consider life hopeless and themselves helpless to effect any change for the better. Suicidal thoughts and ideation may co-occur and need assessment.

Prevalence rates of major depression range from 0.2 - 12.9% with a median of 4.7%. Depression is more common in teenage girls than boys and very common among clinical populations. There are high rates of co-morbidity with anxiety disorders,

conduct disorder and attention deficit hyperactivity disorder in childhood, and with eating disorders and substance abuse in adolescents.

Risk of depression is greater for those living with a lone parent, where both parents are unemployed and where parents have low income and economic disadvantage. Higher risk is also noted for Looked-After children and those living in correctional institutions, and for children and young people who have been maltreated or experienced very traumatic events.

There are numerous aetiological theories to account for depression and multiple pathways to its onset. The most widely accepted model is the 'Stress-Vulnerability Model' which postulates that children and young people have a vulnerability to depression rooted in genetic, endocrine and early family factors and that this vulnerability will interact with current social circumstances or stressful life events to trigger an episode of depression.

Approximately 10% of children and young people with depression will recover spontaneously within 3 months and a further 40% within the first year. Approximately 20 – 30% of children and young people will remain symptomatic after 2 years and many will continue to have episodes of depression and other mental health problems into adulthood.

7.2. Research Evidence Base

(a) NICE Guideline Recommendations

Depression in Children and Young People – identification and management in primary, community and secondary care. ***National Clinical Practice Guideline Number 28 (2005)***

NICE Guidelines recommend that children and young people over the age of 11 years referred to CAMHs should complete routine screening with a self-report questionnaire for depression, as part of the general assessment procedure. Healthcare professionals in primary care, schools and relevant community settings should be trained to detect symptoms of depression and to assess children and young people who may be at risk of depression. Children exposed to a significant undesirable life event should receive support and the opportunity to talk over the event but should not normally be referred for further assessment or treatment as single events are unlikely to lead to a depressive illness. Children who are considered 'high risk' for depression should be assessed by a Tier 1 professional. Early referral should be considered if there is evidence of depression and/or self-harm.

For children with a mild depressive illness it is recommended that 'watchful waiting' be implemented for up to 4 weeks. If difficulties persist the child or young person should be offered non-directive supportive therapy, group CBT or guided self-help for a period of approximately 2-3 months.

Children who do not respond to low-intensity interventions and/or for those with moderate to severe depression, should be offered a specific psychological therapy such as individual CBT, Interpersonal Therapy or Short-term Family Therapy for at least 3 months duration. If difficulties persist the child or young person should be offered an alternative psychological therapy for a further 3 months duration or systemic family therapy (at least 15 fortnightly sessions) or individual child psychotherapy (approximately 30 weekly sessions). The selection of intervention should be based upon the needs and preferences of the child and family. Attention

should also be paid to the mental health needs of parents/other family members and parallel treatment should be provided where relevant.

NICE Guideline Research recommendations – Depression

1. An appropriately blinded, randomised controlled trial should be conducted to assess the efficacy (including measures of family and social functioning as well as depression) and the cost effectiveness of individual CBT, systemic family therapy and child psychodynamic psychotherapy compared with each other and treatment as usual in a broadly based sample of children and young people diagnosed with moderate to severe depression (using minimal exclusion criteria). The trial should be powered to examine the effect of treatment in children and young people separately and involve a follow-up of 12 to 18 months (but no less than 6 months).

2. An appropriately blinded, randomised controlled trial should be conducted to assess the efficacy (including measures of family and social functioning as well as depression) and the cost effectiveness of fluoxetine, the favoured psychological therapy (from phase one), the combination of fluoxetine and psychological therapy compared with each other and placebo in a broadly based sample of children and young people diagnosed with moderate to severe depression (using minimal exclusion criteria). The trial should be powered to examine the effect of treatment in children and young people separately and involve a follow up of 12 to 18 months (but no less than 6 months). In order for this trial to be conducted, the previous trial (phase 1) needs to be completed.

3. An appropriately blinded, randomised controlled trial should be conducted to assess the efficacy (including measures of family and social functioning as well as depression) and the cost effectiveness of another self-help intervention compared with computerised CBT and treatment as usual in a sample of children and young people treated in primary care who have been diagnosed with depression. The trial should be powered to examine the effect of treatment in children and young people separately and involve a follow-up of 12 to 18 months (but no less than 6 months).

4. A qualitative study should be conducted that examines the experiences in the care pathway of children and young people and their families (and perhaps professionals) in order to inform decisions about what the most appropriate care pathway should be.

5. An appropriately designed study should be conducted to compare validated screening instruments for the detection of depression in children and young people. An emphasis should be placed on examining those that use computer technology and more child-friendly methods of assessing current mood and feelings, and take into account cultural and ethnic variations in communication, family values and the place of the child or

young person within the family.

(b) What works for whom? - A Critical Review of Treatments for Children and Adolescents, Fonagy, et al (2002)

There is a strong evidence base for CBT in the treatment of depression in either an individual or group basis. If there has been limited response to an initial programme of CBT it is recommended that a longer programme of CBT or the introduction of booster sessions be made.

Interpersonal Psychotherapy has also been identified as an effective treatment for depression, particularly in adolescents, although there is no evidence to date on the effectiveness of psychodynamic psychotherapy. Social skills training has not been identified as effective in reducing depressive symptoms per se but can serve as a useful adjunct if there are interpersonal deficits remaining when depressive symptoms resolve.

7.1.3. Research identified in Rapid Review – Depression

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Dubicka	2010	5 RCTs	N = 1206 adol. Age Range = 11-18 yrs; Mean age = 15 Females = 54-79%; Clinic samples includ. CJS	CBT combined with new Antidepressants - CBT + Antidepressant VS Routine Care (n = 480) – 12 week prog.; 6-9 month follow-up - Maintenance treatment – 4 studies
Brunwasser*	2009	17 Controlled trials	N = 2,498 Age range =	Penn Group CBT School Based Programme

			8 – 18 years	
Watanabe	2007	27 RCTs (35 comparisons)	N = 1744 Age 6 – 18 years; 64% female; 54% school based Diagnosis MDD/minor dep./ dysthemia	Psychotherapy for Depression Interventions N = 907pts - CBT – 25 trials - CT –2 trials - BT – 3 trials - IPT – 2 trials - PST/ST/other – 1 trial each Control – 767 pts TAU; attention placebo; psychodrama; health education; art exercises
Klein	2007	11 RCTs	N = 1447 Mean ages 12.7 to 16.2 years; Students, outpatients & CJS youth Treatment N = 809 Control = 638	CBT for Adol. Depression – CBT VS Controls - 6 trials Group - intervention - 5 trials individual therapy (include. CBT, relaxation, parent group, systemic family beh. Therapy, IPT & Medication)
Taylor	2007	2 RCTs	N = 101pts; Adol age 13 – 18 years; schools and clinic-based	Can CBT increase self-esteem in depressed Adol. Compared - CBT - Relaxation - Wait list - IPT
Weisz	2006	35 RCTs	N = 100; 20 child; 60 Adol.; 20 mixed ages; Community, school & clinic samples	Effects of psychotherapy for depression Mean = 13 hours of therapy - Cog. Bibliotherapy - CBT - CBT with family input - CBT & Parent group - CT - Social Skills - IPT
Merry	2004	Cochrane Review 21 RCTs (13 included in meta-	N = 6433 Range = 21 – 1500 participants Age Range =	Evaluation of Prevention of Depression Programmes - Psychological Treatment prog = 10

		analysis)	5 – 19 years; Mean age = 15 years	trials (5 – 180 sessions) - Psycho-education Prog – 2 trials (8 – 16 sessions) - Education Prog (3X 50 mins sessions)

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Dubika (1) 2010	- Rating Scales include. HONOSCA; ADAPT; TADS self-report measure etc - Suicide rates	- No sig. difference for self-report depression SMD = 0.04, 95% CI: -0.09 to 0.17, p = 0.56 (5 trials); 6 month follow-up – SMD = -0.03, 95% CI: -0.29 to 0.24, p = 0.84 (3 trials) - Clinician Rated Scales – SMD = 0.06, 95% CI: -0.10 to 0.23, p = 0.46 (4 trials); 6 month follow-up SMD = 0.05; 95% CI: -0.14 to 0.23, p = 0.64 - Combined treatment – sig. better for impairment measure – weighted mean difference = -2.32, 95% CI: -3.91 to –0.74, p = 0.004 (4 trials) - No sig. difference for suicidality or global improvement in short or long term -
Brunwasser (2) 2009	Standardised measures – CBI; Reynolds Adol. Depression Scale; Depression Self-rating Scale	- Penn Programme VS no intervention – SMD = 0.11, 95% CI: 0.01 to 0.20 – average 0.86 points lower on CDI (sig. diff.) - 6-8 months follow-up SMD = 0.21, 95% CI: 0.11 to 0.31 (sig. diff.); Average 1.75 points lower on CDI - 12 month follow-up SMD = 0.20, 95% CI: 0.09 to 0.32 (sig. diff.) Average 1.56 points lower on CDI - Penn Programme VS Active Control – SMD = -0.02, 95% CI: -0.19 to 0.14; 6 – 8 month follow-up SMD = 0.00, 95% CI: -0.18 to 0.19 (not sig.)
Watanabe (3) 2007	- Standardised measures to calculate response - Drop-out rates	- Post-treatment 49.6% of Psychotherapy & 34.8% of Control group responded RR = 1.39, 95% CI: 1.18 to 1.65, p = 0.0001 in favour of psychotherapy - 1-6 month follow-up (18 comparisons) – no

		sig. difference between treatment and control groups - No sig. difference in drop out rates - At post-treatment sig. difference observed in favour of CBT (RR = 1.38, 95% CI: 1.14 to 1.66, p = 0.0009); BT RR = 6.76, 95% CI: 1.45 to 31.40, p = 0.01; IPT RR = 1.68, 95% CI: 1.08 to 2.63, p = 0.02; no difference for other interventions - Psychotherapy more effective for youth with moderate-severe depression
Klein (4) 2007	Standardised measures of depression	- Post-therapy Weighted ES = 0.34, SD = 0.07, 95% CI: 0.20 to 0.48, p< 0.01 - 6 month follow-up (9 studies) ES = 0.62, SD = 0.08, 95% CI: 0.46 to 0.78, p < 0.1
Taylor (5) 2007	- Rosenberg Self esteem measure, CDI, BDI, Self concept scale	- Depression (n = 55) SMD = 0.75, 95% CI: -0.25 to 1.76 in favour of CBT, not sig. p = 0.14 - Self-esteem (n = 55) Post treatment SMD = 0.13, 95% CI: 0.55 to 0.81, p = 0.71 – not sig. - 5 weeks follow-up Academic Self-concept WMD = 12.41, 95% CI: 3.75 to 21.07, p = 0.005 in favour of CBT – highly sig.
Weisz (6) 2006	Standardised measures of anxiety, depression, conduct disorder – reported by child and parent	- Overall effect on depression (35 studies) SD = 0.40, 95% CI: -0.66 to 2.02, p <0.01 - Follow-up effects maintained at 2-3 months but not present at 1 year follow-up (19 studies) - Intervention significant improvement in anxiety SMD = 2.05, p = 0.07 but not conduct problems SMD = 0.05 - Psychotherapy VS Wait list control (20 studies) SMD = 0.41, p <0.01 (sig. difference) - Psychotherapy VS Active Control (15 studies) SMD = 0.24, p = .03 (sig. difference)
Merry (7) 2004	Rating scales - depression, general adjustment, academic performance, social adjustment, cognitive style	- Post-treatment targeted programmes reduced depression scores SMD = -0.26, 95% CI: -0.40 to –0.13 (5 trials) - Universal programmes (not targeted) not effective in reducing depression SMD = -0.21, 95% CI: -0.48 to 0.06 - Educational VS Psychological programmes (9 trials) sig. effect in favour of psychological intervention SMD = -0.26, 95% CI: -0.36 to –0.15

		- Sig. effect for both low-risk (SMD = -0.30, 95% CI: -0.43 to –0.17) and high risk (SMD = 0.37, 95% CI: -0.70 to –0.04) – 5 studies; no significant difference at 6 – 24 months follow-up - Some evidence of beneficial effect on anxiety, negative thinking, low self-esteem, hopelessness, attributional style and problem solving

Research recommendations arising from the above studies

The above authors identified a range of research recommendations. These relate to:

- research design – for example to include all registered participants in outcome data i.e. 'intent-to treat' subjects not just completers (6); to design controlled studies to ensure similarity of treatment and control groups in terms of intensity and duration of therapy (7); and to ensure researchers publish all findings to reduce complications of publication bias (3)

- research follow-up – e.g. to extend research follow-up times (5, 6); to obtain consistent follow-up data from both treatment and control groups (7) and to record adverse effects of treatment (e.g. suicide rate) (3)

- research focus – e.g. to evaluate a range of therapies, not just CBT (3); to evaluate the effectiveness of combined therapies e.g. psychotherapy and pharmacotherapy (4); and to identify components of treatment which are associated with clinical improvement; incomplete response and relapse/remission (5) and to create and evaluate new interventions (5)

Anxiety Disorders

7.2.1. Overview of Disorder

Anxiety disorder refers to a range of clinical presentations which are characterised by anxious or fearful mood which is generalised or triggered by particular situations. The range of anxiety disorders displayed by children and adolescents is similar to those presented in adulthood, with the exception of separation anxiety and selective mutism.

The overall prevalence for anxiety disorders in children and adolescents is approximately 6-10% - the prevalence of separation anxiety = 3%; selective mutism <1%; simple phobias = 3%; social phobia = 1%; generalised anxiety disorder = 2% and panic disorder =1%. Anxiety disorders are more common in boys than girls and many children will meet the criteria for 2 or more anxiety disorders. Separation anxiety, selective mutism and simple phobias are more common in pre-adolescents and generalised anxiety disorder, panic disorder and social phobia are more common in adolescents. Other common co-morbidities with anxiety disorder include major depression (16.2%); conduct disorders (14.8%) and ADHD (11.8%) (Carr, 2006).

Childhood anxiety disorders place children at risk for anxiety and mood disorders in adulthood.

7.2.2. Research Evidence Base

(a) NICE Guidelines

While NICE have developed Guidelines regarding the management of Generalised Anxiety Disorder in adults there is no equivalent Guideline regarding anxiety disorders in children, at this time.

(b) What works for whom? - A Critical Review of Treatments for Children and Adolescents, Fonagy, et al (2002)

Specific CBT packages are effective in the treatment of Generalised Anxiety Disorder and simple phobias, and improvements achieved are maintained over time. There is debate and conflicting evidence as to whether Exposure Therapy is a useful adjunct. If it is used it is recommended to implement it in a gradual exposure rather than flooding. CBT can be provided in an individual, group or family system format. There is some evidence that psychodynamic psychotherapy can be effective in anxiety disorder although research is needed to explore this further. There had been no studies identified which examined the effectiveness of Family Therapy in children and young people with anxiety disorders.

7.2.3. Research identified in Rapid Review - Anxiety

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Cartwright-Hattan	2004	10 RCTs	N = 608 - Age Range = 6-17 years - Anxiety disorders including GAD; Social anxiety; Avoidant anxiety; overanxious disorder	CBT for Anxiety Disorders - 398 CBT – Individual & Group-based - 210 – Control group
James	2009	Cochrane Review 13 RCTs	N = 809 - 498 Treatment + 311 Controls - Age Groups – 6 – 14 yrs = 10; 9 – 17 yrs = 3 - Diagnosis of anxiety disorder - Mild-moderate severity; Community & outpatients	CBT for Anxiety Disorders - Individual CBT = 2 - Individual CBT & family input = 1 - Group-based CBT = 4 - Group CBT + Family = 4 - School-based CBT = 2

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Cartwright-Hatton 2004	Remission rates	Remission Rates - Children with CBT 56.5% chance of remission for their anxiety compared to 34.8% in control group ; OR = 3.27; 95% CI: 1.92 to 5.55, p <0.001; Number needed to treat = 4

		- Follow-up CBT 63.74% chance of remission compared to 21.43% in Control Group; OR = 8.13; 95% CI: 4.35 to 15.22; p <0.001
James 2009	Remission rates	Remission of anxiety (12 studies) - Response Rate – Intention-to-treat group: CBT 56% VS Controls 28.2%; RR = 0.58; 95% CI: 0.50 to 0.67; Number needed to treat = 3 - Response rate for treatment completers: CBT 64.6% VS Controls 21%; RR = 0.43; 95% CI: 0.38 to 0.50; Number needed to treat = 2 - CBT Formats – Remission rates based upon Intention-to-treat: Individual CBT 54.2%; Group CBT 56.8% & Family+ CBT = 67% - No difference in drop out rates between groups

Research recommendations arising from the above studies

Both James and Cartwright-Hatton identify a range of future research priorities. These include extending the range of clients to include those with severe anxiety and/or co-morbid disorders, and to include older adolescents and people with learning disabilities; to examine the economic costs of CBT and to evaluate the effectiveness of other therapeutic orientations (e.g. family therapy, psychodynamic therapy, combined therapies); and to extend the follow-up time of studies to consider longer term effectiveness.

Post Traumatic Stress Disorder

7.3.1 Overview of Disorder

Post Traumatic Stress Disorder (PTSD) refers to the development of a characteristic pattern of symptoms in response to personal experience of an extreme traumatic event that involves actual or threatened death, injury or threat to the physical integrity of the self or another person. Children over the age of 8-10 years display a similar pattern of symptoms as manifested by adults – for example re-experiencing the event through flashbacks, emotional numbing and avoidance of situations which trigger a memory of the trauma and increased arousal. Children under the age of 5 – 8 years are most likely to display evidence of developmental regression and onset of anxiety symptomatology.

Studies indicate that approximately 15 – 43% of girls and 14 – 43% of boys go through at least one trauma. Of the children and teens who have experienced a trauma 3 – 15% of girls and 1 – 6% of boys are estimated to develop PTSD (National Centre for PTSD, website). The population point prevalence for PTSD in children and young people is estimated to be approximately 1% although study estimates vary enormously depending upon the client group and the nature of the trauma researched. For example children may have been exposed to single traumas such an involvement in a natural disaster or to have experienced multiple traumas due to childhood sexual abuse, domestic violence or refugee children escaping from war-torn countries.

7.3.2. Research Evidence Base

(a) NICE Guideline: Post-traumatic Stress Disorder; the Management of PTSD in adults and children in primary and secondary care *National Clinic Practice Guideline number 26 (2005)*

NICE Guidelines recommend the assessment and diagnosis of PTSD be completed via the use of self-report PTSD scales or through the use of structured interviews with the child/young person and their family.

The Guideline identified a strong evidence base for the use of Trauma-Focused Cognitive Behavioural Therapy for the treatment of PTSD in children and young people who had been sexually abused. It was noted that there is a significant dearth of RCTs reviewing the effectiveness of other psychological interventions for children and young people, with a particular absence of any guidance relating to the treatment of PTSD in children less than 7 years of age. Finally the guidance identifies that there is a promising emerging evidence base for the application of EMDR for children and young people and that the evidence to date does not support the use of single-session debriefing for children of any age.

NICE Guideline Research recommendations

1. Randomised controlled trials for children of all ages should be conducted to assess the efficacy and cost-effectiveness of trauma-focused psychological treatments (specifically CBT and EMDR). These trials should identify the relative efficacy of different trauma-focused psychological interventions and provide information on the differential effects, if any, arising from the age of the children or the nature of the trauma experienced.

(b) What works for whom? : A Critical Review of Psychotherapy Research 2nd Edition; Roth & Fonagy (2005)

Roth & Fonagy (2005) identified the effectiveness of trauma-specific CBT in improving PTSD symptoms and associated depression, anxiety and social functioning in children and young people. Studies included both individual and group-

based programmes. There is also evidence regarding the effectiveness of EMDR and emerging evidence regarding individual psychodynamic psychotherapy.

7.3.3. Research identified in Rapid Review

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Hetrick	2010	Cochrane Review 4 RCTs	Chronic or recent onset PTSD Any Age 3 Adult trials 1 Child & Adol. trial	Combined psychotherapies and pharmacotherapy for PTSD - Combination therapy + pharmacotherapy N = 2 trials - Combination therapy + psychological therapy N = 2 trials
Wethington*	2008	7 Controlled trials	N = 1894 Children <21years	Interventions to reduce psychological harm following traumatic events - CBT – 11 studies (2 -20 sessions) - Group CBT – 10 studies (1-10 session) - Play Therapy – 4 studies - Art therapy – 1 study (1 session) - Psychodynamic – 2 studies (50 weeks) - Pharmacotherapy – 2 studies - Psychological debriefing – 1 study

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Hetrick 2010	Valid & reliable clinician rated scales E.G. Clinician administered PTSD Scale; Short PTSD Rating Interview etc	- No sig. difference between combination and psychological therapies SMD =2.44; 95% CI: -2.87 to 7.35 (1 study) - No sig. difference between combination and pharmacotherapy SMD = -4.70; 95% CI: -10.84 to 1.44 (1 study)
Wethington 2008	Standardised measures of symptoms	- Individual CBT higher rate of decrease in psychological harm (anxiety, depression, PTSD) than comparison group SMD Range = 0.06 to –0.34 - Group CBT – some reduction in anxiety, depression & PTSD; SMD Range = -0.37 to –0.56 - Play therapy – all subjects displayed reduction in symptoms SMD Range = -0.06 to –1.23 - Art Therapy – non-sig. reduction in PTSD symptoms (1 study) - Psychodynamic – reduction in PTSD symptoms; SMD = -0.87; 95% CI –1.37 to –0.37 (1 study) - Psychological Debriefing – children displayed increase in PTSD symptoms (11%) and depression (3%) relative to Control group

Research recommendations arising from the above studies

Hetrick advocated for the completion of larger RCTs which utilised consistent measures of PTSD; a broader range of outcomes including functional outcomes; and more homogenous groups based upon the nature of trauma exposure. Wethington also recommended the identification of psychotherapy interventions which could be delivered in developing/low income countries who are likely to have a lack of trained professional therapists.

Suicide

7.4.1 Overview of Disorder

Suicide by definition refers to death that directly or indirectly results from an act that the dead person believed would result in this end.

Deliberate self-harm includes nonfatal or attempted suicide and life-threatening behaviours in which the young person does not necessarily intend to take his/her own life.

Suicide is the second leading cause of death in young people aged 15-24years (surpassed only by road traffic accidents). Completed suicide is extremely rare in children under 12 years but incidence increases in each of the adolescent years. The rate of suicide in Northern Ireland is extremely high with an estimated 636 per 100,000 suicides in N. Ireland in 2006 in the 15 – 24 year age group. This reflects a 111% increase in the suicide rate from 1997 to 2006. This increase is strongly influenced by a sharp rise in suicide in young men in disadvantaged areas, particularly in North and West Belfast. It is noted that official statistics represent only a proportion of the total number of non-accidental self-inflicted deaths.

Community surveys indicate that suicidal thoughts are a common phenomenon among young people, particularly girls and that acts of para-suicide are 40 to 100 times higher than the proportion who actually end their lives. However 1.8% of people who self-harm die by suicide within the year following the incident and 8.5% die by suicide over the next 22-year period (Crawford, 2007).

Suicide rates are highest for certain groups of young people for example those in secure institutions and those who are homeless. Risk factors for suicide include mental health problems – particularly affective disorders, substance misuse and

personality disorder; disturbed family relationships and acute life crisis (e.g. recent incarceration). It is estimated that approximately half of all people who commit suicide had discussed or threatened suicide within the 24 hours before their death and that previous attempts had been noted for 50% of female and 25% of male teenage deaths (Shaffer, 2002).

Reducing the rate of suicide is a national priority in the UK. Interventions focus on identifying and treating 'high-risk' individuals and population based strategies which aim to reduce or control environmental factors associated with higher levels of suicide behaviour. These include for example educational programmes in schools, the control and/or modification of access to methods used for committing suicide, efforts to reduce substance misuse, responsible media reporting of suicide and aftercare programmes for those who have deliberately harmed themselves (including access to a 24 hour helpline number).

The psychological treatment of high-risk individuals is frequently hampered by extremely poor compliance with follow-up assessment and treatment following discharge from hospital. Factors which influence subsequent attendance at treatment include attitudes and responses by parents/family and the experience of treatment while in the A&E Department.

7.4.2. Research Evidence Base

(a) NICE Guideline Recommendations

Self harm – the short-term physical and psychological management and secondary prevention of self harm in primary and secondary care. *National Clinical Practice Guideline Number 16 (2004)*

The above Guideline is concerned with self-harming behaviour for children, young people and adults. The document relates to self harm 'irrespective of the apparent purpose of the act' and as such includes strategies for individuals where suicide was the intention and where self harming behaviour was carried out for other motives.

The Guideline indicates that following an episode of self-harming behaviour the child or young person should be admitted to a paediatric or adult ward (depending upon age) and that the CAMHs service should undertake an assessment and provide consultation on the case. Initial management advice should be given to carers to remove access to all means of self harm. Consideration should also be given to access Developmental Group Psychotherapy (minimum 6 sessions) which should be extended as necessary. Assessment of the individual's underlying problems or particular diagnosis should also be completed rather than simply treating the self-harming behaviour.

NICE Research Recommendations

1. **An adequately powered RCT reporting all relevant outcomes should be undertaken to determine the relative effectiveness of group therapy for young people who self-harm. The study should address patient characteristics (such as gender, diagnosis, frequency and method of self-harm, past history of abuse) and family characteristics (such as parental disharmony and divorce, family size, socio-economic status, mental health problems in the parents and siblings). Outcomes should include loss from services, admission rates, satisfaction, repetition of self harm, quality of life, educational attainment and employment status.**

(b) What works for whom? - A Critical Review of Treatments for Children and Adolescents, Fonagy, et al (2002)

Fonagy et al identify that there is some evidence of the effectiveness of brief cognitive-behavioural interventions which focus upon problem solving with families of

adolescents following a suicide attempt. This intervention increases further compliance with specialist programmes. However further research is needed in this area.

There was also noted to be growing evidence of the value of education programmes targeted at high-risk adolescents.

7.4.3. Research identified in Rapid Review

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Newton *	2010	10 studies - 7 RCTs - 3 quasi-exper.	N = 3818 Range = 31-1867 Age: 4 studies 12 – 18years; 4 studies 15+ years - Suicide attempt = 5 - Self harm = 1 - Ideation = 2 - Undefined = 2	Mental Health Care in Emergency Department - 5 studies Psychotherapy (incl. CBT, problem solving, interpersonal skills training; referral/outreach) - 1 study – Family intervention + indiv therapy - 1 study – Parent Intervention - 1 study Intervention + community - 1 Standard Care - 1 Rapid Response Outpatients
Crawford	2007	18 RCTs	N = 3918 Individuals with self-harm – all ages	Psychosocial intervention following self-harm Interventions : Problem Solving = 4; Psycho-education = 3; Domiciliary visit = 2; CBT = 3; Group CBT = 1; DBT = 1;

				Psychotherapy = 1; Admission =1; Family focused = 1

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Newton 2010	- Death by suicide - Subsequent hospitalisation - Treatment adherence post-discharge	- Planned discharge from A&E increased numbers of post-treatment sessions attended SMD = 2.6; 95% CI: 0.05 to 5.15 - 3 transition intervention studies reported reduced risk of subsequent suicide RR = 0.10, 95% CI 0.03 to 0.41; reduced suicide- related hospitalisation RR 0.41, 95% CI: 0.28 to 0.60; increased likelihood to attend outpatient sessions with parent OR = 2.78, 95% CI: 1.20 to 6.67
Crawford 2007	Proportion of people who die by suicide	- No differences observed in suicide rates between treatment group (N = 18 suicides) and Control Group (19 suicides); RO = 0.0; 95% CI: -0.03 to 0.03

Research recommendations arising from the above studies

The research recommendations relating to the above studies relate primarily to service delivery and design issues – for example what are the factors which influence A&E staff attitudes and responses; can quality of care in A&E Departments be improved by providing specialist teams to respond to these clients, and how to develop a systematic and comprehensive programme of research which includes and integrates both hospital and community services and priorities. Newton also recommended evaluating the effectiveness of targeted parent prevention strategies in reducing suicide attempts.

Autistic Spectrum Disorder

7.5.1 Overview of Disorder

Autistic Spectrum Disorder (ASD) is an umbrella term for conditions on the autistic spectrum including autism, asperger's syndrome and high functioning autism. ASD is a life-long pervasive developmental disorder which affects 3 main areas of functioning:

- social communication (e.g. difficulties using and understanding verbal and non-verbal language such as gestures, facial expression and tone of voice)
- social interaction (e.g. difficulties recognising and understanding other people's feelings and managing own feelings)
- social imagination (e.g. difficulties in understanding and predicting other people's intentions and behaviour and imaging situations outside their own routine).

Children and young people with ASD can also experience concurrent sensory processing difficulties and can have many co-occurring disorders such as learning disability, ADHD, dyspraxia and depression.

Reported prevalence rates for ASD have grown rapidly in the last 15 years with rates at the end of the 1990s suggesting a rate of 1 per 1,000 and current estimates suggesting the prevalence of ASD to be 1 per 100 (The Hidden Community, AutismNI, 2010). It is estimated that there are approximately 20,000 people with Autistic Spectrum Disorder in N. Ireland and a further 200 new cases of ASD diagnosed each year (ASD Strategic Action Plan, 2008).

ASD has its onset at birth although its presentation frequently goes unrecognised before the 2nd or 3rd year of life, or later in individuals who are 'high-functioning'. ASD

occurs in boys 3-4 times more often than girls and the severity of the disorder can vary greatly.

7.5.2. Research Evidence Base

(a) NICE Guidelines

NICE are currently developing 2 guidelines relating to Autistic Spectrum Disorder in children and young people:

- Autistic Spectrum Disorder in children and young people: recognition, referral and diagnosis. This document is currently in press and its expected publication date is September 2011.

- Autism – the management of autistic spectrum disorders in children and young people. This document is also currently in the development stage although no expected date of publication has been listed.

(b) What works for whom? - A Critical Review of Treatments for Children and Adolescents, Fonagy, et al (2002)

Fonagy et al note the broad continuum of abilities and needs of children and young people with ASD. They recommend a comprehensive assessment from which to develop an intervention plan tailored to the needs of the child and family. Interventions to be provided include behaviour programmes at home and at school incorporating parent and teacher training. They identified that while Intensive Early Behavioural Intervention tends to focus on children under 4 years it is unclear if this age limit is a necessary condition for successful treatment. There is also no clear research evidence regarding the effectiveness of parent training groups or individual social skills training for children with ASD. It is acknowledged that there can be significant co-morbid mental health problems, particularly for adolescents with

Asperger's Syndrome. There was however no research evidence base on which to recommend specific psychotherapeutic treatments.

7.5.3. Research identified in Rapid Review

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Virues Ortega*	2010	22 studies – repeated measures	N – 323 children; mean ages 22months – 66 months Male 55 – 98%	Applied Behaviour Analytic Intervention - 13 trials UCLA ABA Model - 9 trials General ABA model 18 clinic based; 2 home based; 2 unspecified Intervention duration 48 – 407 weeks; Intervention intensity 12 – 45 hours per week
Makrygianni*	2010	14 studies – RCTs & repeated measures	N = 363 Mean age at intake = 38 months; Mean IQ = 53	Behaviour Early Intervention Programmes - Studies divided into High and Low methodological quality - Intensity Mean per week = 27.54 Hrs (SD = 10.47) for high quality; 25.89 (SD = 10.27) for low quality - Duration 27.51 months (High Q); 37.26 months (Low Q)
Lang*	2010	9 studies – repeated measures design	N = 110 pts with ASD; Sample size = 1-50; 60% male; 15% female; 25% not specified; Age range 9	CBT Treatment of anxiety in ASD (anxiety including social phobia, OCD, separation anxiety,, GAD, Panic Disorder) - Number of sessions = 6 –16 sessions Average = 12.4

			– 23 years, Mean = 10 years 67% Asperger's, 18% Autism; 15% PDD.NOS	- Duration = 6 weeks – 6 months; Average = 4 months - Manualised instructions adapted to child
Eldevik*	2009	34 studies 9 controlled studies used in meta analysis	N = 297 children	Early Intensive Behaviour Intervention - 153 EIBI treatment group - 105 Control group Mean intensity of treatment = 27 hours per week
Wang*	2009	38 Controlled Studies	N = 147 participants with ASD; 73 boys, 6 girls + 68 matched peers 2 – 17 years – mostly 6 – 12 years	Social Skills Interventions - Social stories = 6 - Peer mediation = 9 - Video Modelling = 11 - CB Training = 3 - Others = 9 - Majority school based interventions - 36 – single subjects & 2 group designs

* = less robust evidence base

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Virues Ortega (1) 2010	Full Scale IQ; Nonverbal IQ; receptive language; expressive language; Adaptive behaviour	- Full Scale IQ – (18 studies, n = 311) Pooled effect size = 1.19, 95% CI: 0.91 to 1.47, $p < 0.001$ – effect stronger for clinic-based programmes - Nonverbal IQ (10 studies, n= 146) Pooled effect size = 0.65, 95% CI: 0.17 to 1.13, $p = 0.008$ - Language skills (11 studies, n = 172) Pooled effect size = 1.48, 95% CI: 0.96 to 1.97, $p < 0.001$ - Adaptive behaviour composite (15 studies, n = 232) Pooled effect size = 1.09, 95% CI: 0.70 to 1.47, $p < 0.001$ Noted that heterogeneity and publication bias were present in all comparisons

Makrygianni (2) 2010	Intellectual ability; Language ability Adaptive functioning	- Intellectual ability Effect Size WES1 = 0.950, SE 0.132 (High Q); WES1 = 0.909, SE = 0.079 (Low Q) - Language Ability – WES1 = 0.990, SE = 0.134 (High Q) WES1 = 0.897, SE = 0.148 (Low Q) - Adaptive Behaviour – WES1 = 0.421, SE = 0.154 (High Q); WES1 = 0.474, SE = 0.108 (Low Q) (not sig.) - More intensive programmes have higher gain in intellectual and adaptive behaviour - Trend that younger child at intake achieves greater gains - No impact of child's level of IQ at intake
Lang (3) 2010	Standardised measures e.g. Social Anxiety Scale; BDI; Yale-Brown OCD Scale	- Reduction in levels of anxiety noted in each study based upon parent report - Child-Report suggested less consistent reports of anxiety reduction
Eldevik (4) 2009	Intellectual Functioning assessments; Adaptive Behaviour measures	- Intellectual functioning – Effect size = 1.10, 95% CI: 0.87 to 1.34 - Adaptive Behaviour – Effect size – SMD = 0.66, 95% CI: 0.41 to 0.90
Wang (5) 2009	Social skills assessments – Q'aire & observation	- Social Stories (6 studies) PND scores ranged from 46.7% to 100%; Mean = 67.2% - indicating moderate effectiveness - Peer Mediation (9 studies) PND scores ranged from 35.09 – 100%; mean = 60.69% - low/moderate effectiveness - Video Modelling (11 studies) PND = 50 – 100% Mean = 84.25% - indicates highly effective - CB Training (3 Studies)PND =100% - highly effective - Other interventions (e.g. PECs, ToM etc) – insufficient data to calculate PND

Research recommendations arising from the above studies

3 out of the 5 studies noted above specifically evaluated the effectiveness of Early Intensive Behavioural Interventions. The authors of these studies advocated the development of protocols which compared EIBI with other psychological

interventions which were matched in terms of treatment intensity and duration (1, 2) and parent and staff training and supervision arrangements (4). Recommendations also included the identification of treatment components and process factors which impact on treatment effectiveness (2, 3) and the development of studies which include older children (5).

Attention Deficit Hyperactivity Disorder

7.6.1. Overview of Disorder

Attention Deficit Hyperactivity Disorder (ADHD) is a neuropsychiatric disorder characterised by reduced levels of concentration or attention, impulsivity and overactivity or restlessness. The prevalence rate of ADHD in school-aged children is estimated to be between 3%-5% and in adolescents to be between 1.5% - 5%. ADHD is diagnosed much more frequently in boys than girls with gender ratio figures between 1:3 to 1:9 depending upon diagnostic criteria and sample considerations. The peak age of diagnosis is 7 years although symptoms develop from age 2-3 years.

There is a high frequency of co-morbidity in children with ADHD with research indicating 30-50% of children will have a concurrent conduct or oppositional disorder; 15 – 75% have a mood disorder and 25% have an anxiety disorder (Biederman, 1991). Children with ADHD are also at increased risk for specific learning difficulties e.g. reading and writing difficulties, and motor co-ordination difficulties.

ADHD is a chronic condition and 65% of children with ADHD will continue to experience the disorder into adulthood. These adults also have a high prevalence of co-occurring conduct difficulties and substance misuse.

7.6.2. Research Evidence Base

(a) NICE Guideline Recommendations

Attention Deficit Hyperactive Disorder – Diagnosis and management of ADHD in children, young people and adults. *National Clinical Practice Guideline Number 72, (2009)*

NICE Guidelines recommend the following interventions:

Treatment for pre-school children

- referral to a group-based parent training/education programme

or

- individual parent training programme if unable to access group based programme

* It is recommended to involve both parents/ all carers in this training programme

Treatment for school-age children with ADHD and moderate impairment

- Parent Group based training programme

plus

- CBT and/or Social Skills training for the child or young person

(in group or individual format)

NICE Guideline Research Recommendations – ADHD

1. Are group-based behavioural parent-training/education methods more effective than drug treatment in school-age children and young people with ADHD in terms of symptoms, quality of life and cost effectiveness? This would be best evaluated by a head-to-head randomised controlled trial.

2. Does the training of teachers in the behavioural management of children with ADHD in primary and secondary schools improve ADHD symptoms and academic attainment, the teacher's experience of stress in the classroom and the impact of ADHD on other pupils when compared with current education methods? This would be best conducted as a randomised trial.

(b) What works for whom? - A Critical Review of Treatments for Children and Adolescents, Fonagy, et al (2002)

Pharmacotherapy is the most evidenced based treatment for children and adolescents with Attention Deficit Hyperactivity Disorder. Behaviour Therapy has been identified as a useful adjunct to medication, particularly as it can reduce the need for higher doses of medication. There is also evidence of benefit from CBT but it is unclear as to the relative added value of the cognitive components.

Parent training is also effective in families who can persist with the approach. There is an emerging evidence base for Multimodal interventions but no evidence at time of publication regarding the efficacy of social skills interventions, psychodynamic therapies or systemic therapy for ADHD.

7.6.3. Research identified in Rapid Review

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Bjornstad	2005	Cochrane Review 2 RCTs	Study 1 N = 579 Children; 7 – 9.9 years Study 2 N = 96 families	Family Therapy for Attention Deficit Disorder or Attention Deficit Hyperactivity Disorder Study 1 – 14 months - Behaviour Intervention = 144 - Medication = 146 - Combined = 289 Study 2 - Family Beh. Therapy = 16 - Medication = 16

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)

Bjornstad (2005)	- Standardised measures E.G. Conor's Parents & Teacher Rating Scales - Classroom observation	Study 1 - Medication management superior to behavioural treatment in reducing symptoms of ADHD ($p < 0.001$) Study 2 - No difference between combined therapy and medication management in alleviating symptoms - Some evidence that low dose medication plus behaviour therapy yield same effects as high dose medication - Family Therapy and medication placebo significantly more effective at reducing ADHD symptoms in classroom context

Research recommendations arising from the above studies

Bjornstad recommended the commissioning of further RCTs to evaluate the effectiveness of Family Therapy interventions compared to 'Treatment-as-Usual' or Wait list controls. He recommended that larger sample sizes be included, that studies incorporate a measure of treatment compliance and that analysis considers which specific aspects of intervention are most applicable to ADHD.

7.7.1.Psychological Therapies for Multiple Disorders

Research is most often completed for individual client groups regarding specific conditions. This attempt to achieve highly selected, diagnostically homogenous populations enhances the internal validity of the study, although compromises its external validity as it does not represent the actual experience of clinical practice.

As with the Adult Conditions Section, the Children and Young People rapid review also identified 10 research projects which reviewed the effectiveness of psychological therapies for mixed client groups and/or multiple presentations within the same client group. These research projects are outlined in the table below.

7.7.2. Research identified in Rapid Review Multiple Disorders

First Author	Year	Study Types (e.g. RCT, non-randomised controlled trial)	Population	Intervention
Dowell	2010	48 RCTs	N = 3892 Mean age =12.01 years SD = 3.30; 62.6% male; 81% Caucasian; Problems: Externalising 45%; Internalising = 27%; child maltreatment = 4%	Effect of Parent Participation on Child Psychotherapy Outcome Intervention Orientation - CB – 66% - Eclectic – 8.9% - Client centred – 7% - Systemic – 1.8% - Outpatients = 71% - Inpatient = 2% - School = 11% Drop-out rate = 18.1% SD = 15.3 Duration Child only = 24.1 sessions; duration Parent & Child = 29.6 sessions
Townsend	2010	10 RCTs	N = 1391 Range 16 – 983 participants	Interventions for Young Offenders with mood disorder, anxiety disorder & self harm

			Age range 14-19 years	Interventions - Group therapy = 2; CBT = 2; Problem solving = 2; relaxation =1; Transactional analysis = 1; Medication =1; Psychosocial =1 Duration 2 days – 2 years
De Los Reyes	2009	16 RCTs	CBT Group – N = 354; age = 8 –14 years; boys 53%; Mean sample size = 50.44 Behaviour Parent Training – N = 481; mean sample = 68.71 SD = 33.07	Evidence based interventions for Children and Adol. Using Range of Possible Change Model - CBT – 9 studies - Beh. Parent Training – 7 studies - 21 comparisons Treatment length CBT = 803 mins; BPT = 1173 minutes
Chorpita	2009	232 RCTs	Age Groups - 0 – 3 yrs = 37 - 4 –7 yrs = 96 - 8 – 11 yrs = 122 - 12 –15 yrs = 133; 16 –- 19 yrs = 61; - unspecified = 20	Mapped components of effective evidenced based treatment for range of disorders 41 Practice elements/ methods used in effective therapies - Anger – 48 studies - Anxiety –56 studies - Oppositional = 45 - Phobia = 35 studies - Depressed mood = 24 studies - Hyperactivity = 21
Miller*	2008	23 controlled studies	N = 1060 Age range = 3 – 18 years; Mean No. per treatment = 23; Conditions – anxiety = 3; depression = 6; conduct	Comparison of treatment modalities Interventions include: - CBT - Systemic - Parent Training - Problem Solving - EMDR - Behavioural Interventions - Communication

			disorder = 10; ADHD = 4	training
Chu	2007	28 RCTs - 14 RCTs Anxiety - 14 RCTs depression	Anxiety N = 686 age range = 5-17 years Depression N = 723 Age range 7 –17 years	CBT for Anxiety and depression Intervention – anxiety studies - 22 conditions - 9 wait list - 5 – active controls - 6 studies multiple formats of CBT Intervention – depression studies - 8 Wait list - 6 – Active Treatment - 4 - multiple forms CBT
Waddell	2007	15 RCTs	N = 6781 Range of sample 43 – 5145 0 – 18 years; diagnosis anxiety, depression, conduct disorder	Preventative programmes for mental health disorders - Conduct Disorder – 9 studies - Anxiety – 1 study - Depression – 4 studies - Mixed disorders – 1 study
Weisz	2006	32 RCTs	N = 1768 Mean age = 13.2 years SD = 2.9 Mean % males = 80.1% - Delinquency &/or substance misuse = 17 - Conduct Disorder = 12 - Internalising problems = 3	Evidenced based Youth Psychotherapies Versus Treatment as Usual Interventions (36 comparison) - Behaviour therapy (including CBT) = 27 - Systemic interventions = 7 - IPT = 1 - Motivational Interviewing = 1 Outpatients = 18 Inpatients = 10 Probation = 7

Bratton *	2005	93 Controlled studies	N = 3,248 Average age = 7 years; 65% male Internalising problems = 24; externalising problems = 17; Both/mixed =16; other = 36	Effectiveness of Play therapy Play therapy - Humanistic/ non-directive = 73 - Non-humanistic/ directive = 12 Setting School = 36 Outpatients = 34 Residential = 6
Gonzalez*	2004	19 controlled trials	N = 2129 Age range = 8 –18 years All in school setting	Rational Emotive Therapy with Children and Adolescents Sessions range from 6 – 85 sessions

* = less robust evidence base

Results

First Author & Year	Outcome Measures	Key Findings (e.g. overall effect size and confidence interval)
Dowell (1) 2010	- Child Behaviour Checklist; Q'aires Re anxiety & depression; symptoms observations via teachers, parents & independent observers	- Parent-Child Intervention VS Child only ES = 0.27, 95% CI: 1.71 to 1.10 - Moderator analysis – CBT oriented child only treatment (d = 0.22) more effective than non-CBT oriented child treatment (d = 0.56) p = .06
Townsend (2) 2010	Questionnaires – BDI; PTSD Checklist; HADS; BAI; Life Attitude Scale	- Significant improvement in depression symptoms SMD = 0.38, 95% CI: -0.69 – 0.07 as compared to controls (8 trails) - Significant improvement in anxiety (3 trials) - No significant reduction in self-harm
De Los Reyes (3) 2009	Questionnaires CBT Group – mean No. Q'aires = 4.55 SD = 1.21; BPT Group = 3.80, SD = .63	- Multiple outcome measures used in studies impact on how and to what degree effect sizes are calculated - Drop-out CBT = 13.10%; SD = 9.59% - Drop-out BPT = 9.27%; SD = 8.56%

Choripta (4) 2009	Not applicable	Components of effective interventions include: - Autism – communication skills, modelling, social skills training, goal setting - Anxiety – exposure, relaxation, cognitive skills, modelling, psycho-education - Depression – cognitive skills, psycho-education, relapse prevention, activity scheduling, problem solving skills - Oppositional/aggressive – praise, time-out, tangible rewards, commands, problem solving skills - ADHD – praise, rewards, parent education, modelling, problem solving skills - Substance misuse – family therapy, communication skills, assertiveness, modelling, self-monitoring, stimulus control
Miller (5) 2008	Standardised measures of psychological functioning	- Psychotherapy – overall true effect size = 0.22. However controlling for allegiance of the researcher to the treatment approach removed all variability among effects
Chu (6) 2007	Behavioural, physiological, cognitive and coping processes – assessed via Q'aires	- Anxiety studies – CBT outcome for anxiety – ES = 0.64 SMD = 0.38, 95% CI: 0.18 to 1.42, $p < 0.001$ - Outcome for depression – ES = 0.55, SMD = 0.23, 95% CI: -0.06 to 0.92, $p < 0.001$ - Outcome for general functioning – ES = 0.45, SMD = 0.53, 95% CI: -0.54 to 1.72, $p <0.01$ - Depression studies – outcome for depression – ES = 0.60, SMD = 0.48, 95% CI: -0.51 to 1.69, $p < 0.001$ - Outcome for anxiety ES = 0.28; SMD = 0.44, 95% CI: -0.25 to 1.62, $p = 0.05$ - Outcome for general functioning – ES = 0.46; SMD = 0.46, 95% CI: -0.19 to 1.05, $p < 0.05$
Waddell (7) 2007	Minimum – 2 symptom measures & 1 diagnostic measure	- Most effective treatments for conduct disorder include parent training, child social skills training or a combination of both – delivered over 1-2 years in home or school (9 studies) - Anxiety 'Friends' Programme – incorporating CBT approaches (1 study)- significant reduction in anxiety symptoms post-treatment, maintained at 1 year follow-up – significantly greater effect when targeted at children with symptoms - Depression – school based CBT programme – significant reduction in

		depressive symptoms reported in 2 studies – maintained at 2-year follow-up. Other 2 studies – sig. reduction in anxiety but not depression symptoms
Weisz (8) 2006	Standardised measures of disorders	- All interventions VS Treatment as Usual – ES = 0.30, p <0.0001 - Follow-up 65 weeks – ES = 0.32, p <0.001 - Effectiveness not attributable to larger dose of treatment than control, the use of homework tasks or the training background of the therapist
Bratton (9) 2005	Standardised measures of Behaviour, Social adjustment, Personality, Self-concept, anxiety-fear, Family functioning	- Mean effect size for play therapy VS Control = 0.80 $\pm$ 0.04, p = <0.001 (93 comparisons) - Effect size not influenced by age, gender or type of presenting problem - Humanistic approaches higher effect size than non-humanistic - Play therapy conducted by parents larger treatment effect than when conducted by professional
Gonzalez (10) 2004	Measures of anxiety, self concept, locus of control, grades, disruptive behaviour, thinking style	- Overall effect sizes – weighted means - Overall SMD = 0.50, 95% CI: 0.40 to 0.61 - Anxiety SMD = 0.48, 95% CI: 0.44 to 0.59 - Disruptive behaviour SMD = 1.15, 95% CI: 0.89 to 1.41 - Irrationality SMD = 0.51, 95% CI: 0.49 to 0.54 - Self concept SMD = 0.38, 95% CI: 0.34 to 0.41

Research recommendations arising from the above studies

The above category of studies represents a diverse mix of client groups, treatment settings and therapeutic orientations. There were some general recommendations regarding research methodology which have been commonly identified in other clinical areas – e.g. the completion of large studies to achieve sufficient power (2, 7); to provide longer treatment duration (2) with longer follow-up times (7) and broader outcome measures (10). Authors also suggested evaluating effectiveness in a more diverse range of settings (e.g. CJS settings) (2), settings other than schools (10)) and to complete additional studies on the effectiveness of play therapy (9), rational

emotive therapy (10) and to test fidelity to the model being implemented (10). Finally there were recommendations to evaluate the cost effectiveness of interventions (7) and to assess generalisation and maintenance factors which influence the longer-term utility of interventions.

References – Child

Aware Defeat Depression, Mood Matters Information Leaftlet

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8. Learning Disability

People with learning disabilities do not constitute a homogeneous group. However, in terms of diagnosis and classification there are a number of features of learning disability which have gained widespread acceptance across professional boundaries within the UK and America (AAMR, 1992; WHO, 1992; APA, 1994; DOH, 1998). Irrespective of the precise terminology, or the wording in the various definitions, there are three core criteria for learning disability: significant impairment of intellectual functioning; significant impairment of adaptive/social functioning and age of onset before adulthood. All three criteria must be met for a person to be considered to have a learning disability (see Appendix 12 for further details of the main clinical definitions) (BPS, 2000). Equal lives (2005) adopted the following definition which will be used as the working definition for learning disability for this review:

"Learning disability includes the presence of a significantly reduced ability to understand new or complex information or to learn new skills (impaired intelligence), with a reduced ability to cope independently (impaired social functioning), which started before adulthood with a lasting effect on development."

(Equal lives 2005)

> ***The terms learning disability, intellectual disability, mental retardation will be used interchangeably throughout this report***

Prevalence of learning disability in Northern Ireland

The Bamford Review (2005) looked at the prevalence of learning disability in Northern Ireland. Table 8.1 is taken from the Bamford Review's Strategic Review of Learning Disability and Service Provision. Using data from various databases, it presents estimates of the numbers of people with a learning disability by age

groupings and severity of disabilities and provides comparative data from the Republic of Ireland.

Table 8.1 Learning disability by age and severity

Age Bands	Moderate	Severe/Profound	Total	Overall Prevalence	RoI Prevalence*
0-19	6432	1718	8150	16.30	7.69
	39.3%	**10.5%**	**49.8%**		
20-34	2504	1047	3551	10.16	9.59
	15.3%	**6.4%**	**21.7%**		
35-49	1489	949	2438	7.04	7.81
	9.1%	**5.8%**	**14.9%**		**(35-54 yrs)**
50+	1473	753	2226	4.54	3.62
	9.0%	**4.6%**	**13.6%**		(55+ yrs)
Totals	11,898	4,468	16, 366	9.71	7.35
	72.7%	27.3%	100%		

(McConkey, Spollen & Jamieson, 2003)

The prevalence figures for people aged 20 years and over are broadly comparable with those in the Republic of Ireland. Similar data are not available for Great Britain although in Scotland an estimated 5.45 per 1,000 are in regular contact with services with others having occasional or short term contact. Some of this additional level of learning disability in Northern Ireland may be due to the fact that rates for congenital malformation at birth are much higher than in Britain (Statistics and Research Agency, 2002). These numbers represent people known to services at a particular point in time. It is possible that the actual numbers of people with a learning disability are higher and they may come close to the often quoted figure of 2% of the population having a learning disability. This is especially so when those with milder forms of impairments, but allied with poor social circumstances, are included. This would indicate that there is an unrecognised population of people with a learning disability of approximately 16,000 who are currently not known to services. (Bamford,

2005) Internationally there is clear evidence for a link between higher prevalence rates of mild/moderate learning disability and poorer socio-economic status and unstable family backgrounds. This link with a severe learning disability is less clear-cut, but more recent research internationally does suggest a link with socio-economic status (Louihala, 1995). Research in Northern Ireland has identified a significant association between the indicators of socioeconomic measures of deprivation and the prevalence of people with a learning disability recorded on service information systems irrespective of the severity of their disability (Dixon, 2003).

Existing guidelines on the use of psychological therapies with individuals who have a learning disability

There is a distinct lack of guidelines for professionals delivering psychological therapies to individuals who have a learning disability. There are no published NICE guidelines within the field of learning disability to guide professionals in the use of best practice. Within their individual professions, individuals often have access to professional guidelines but these are generally limited to specific interventions and presentations. For example, within the profession of Clinical Psychology, Professionals have access to a number of documents that offer guidelines on working with individuals who have a learning disability and who are presenting with behaviour that challenges services. One such document is the BPS Clinical Practice Guidelines on Psychological Interventions for Severely Challenging Behaviours shown by people with Learning Disabilities (BPS, 2004). These guidelines rely heavily on the literature contained within the field of applied behaviour analysis as

this reflected the state of research at the time of writing. The guidelines recommend a process that is person-centred, takes account of the person and their environment and the interaction between them and adopts a series of stages that include pre-assessment, assessment, formulation, intervention, evaluation and feedback.

More recently the Royal College of Psychiatry (RCP), the British Psychological Society (BPS) and the Royal College of Speech and Language Therapists have produced a joint document that offers guidelines on best practice when working with individuals who have a learning disability and challenging behaviour. Challenging Behaviour: a Unified Approach; Clinical and Service Guidelines for Supporting People with Learning Disabilities who are at risk of Receiving Abusive or Restrictive Practices was produced in June 2007. This document aimed to revise and develop the interpretation of the term challenging behaviour, to bring together relevant, available, evidence-based practice with a consensus of clinical opinion and experience, to provide a unified framework for good practice in multidisciplinary clinical and social interventions, to provide a set of standards of good practice against which services could benchmark and audit and to guide future research and development. The guidance recommended that interventions should be delivered in a person-centred context and a framework of positive behavioural support. They should include proactive and reactive strategies. Interventions described in the guidance included psychotherapy, communication, positive programming, physical and or medical and psychopharmacological.

8.1 Psychotherapeutic interventions

Psychotherapeutic interventions have been denied to people with learning disabilities for many years but these interventions are now being increasingly validated as applicable and effective (Royal College of Psychiatrists, 2003). Cognitive behavioural approaches either individually or in groups have been applied to problems of anxiety, anger, aggression and offending andpsychodynamic approaches may be effective in reducing psychological distress and interpersonal problems and increasing self esteem as well as reducing offending behaviour (Hollins & Sinason, 2000; Beail, 2003; Wilner, 2005). Families and carers can encounter personal and interpersonal stressors and conflicts that may benefit from psychotherapeutic intervention and support using systemic, organisational or other psychotherapeutic approaches to recognise and address these issues at a wider level (Baum & Lyngaard, 2006).

The joint RCP and BPS document recommended that future research should focus on the development of a set of outcome measures for interventions in the assessment and management of the behavioural challenges of people with learning disabilities. Particular focus should be placed on measuring the outcomes of interventions with carers, staff teams, and other systems. The authors acknowledge that the evidence base in challenging behaviour is much more extensive than other areas of learning disability and recommend the establishment of a current evidence-base around effective interventions, based on good single case methodology and building up an evidence base from clinical practice.

Recommendations include emphasis on early intervention and prevention work. There is an evidence base that suggests that once patterns of behaviour have developed, and environmental responses have become entrenched, it is difficult to

bring about lasting change without extensive interventions. In order to implement best practice, recommendations include collaboration with service users and carers and the development of NICE guidelines with learning disability. Training of support staff should be a major component of interventions and should include a rolling programme of competency based training. More collaborative and inter disciplinary activity is needed in research evaluation and audit.

There are no published guidelines for professionals working within learning disability services on the use of psychological therapies with individuals who present with other difficulties including anxiety, anger, and depression. Although there are no NICE guidelines that have been produced specifically for individuals who have a learning disability, unless specifically excluded, all nice guidelines should be considered to be applicable across the range of intellectual ability. The development of guidance on psychological and physical treatments or management strategies for challenging behaviour could prove useful (RCP & BPS, 2007)

Results of the current systematic review

The current systematic review identified eight reviews within the area of learning disability. This included reviews on challenging behaviour (2), mood disorders (1), PTSD (1), aggression (2) and mental health problems (1) and one article reviewing cognitive therapy in anger and depression.

8.2. Challenging behaviour

The most widely used formalised definition of challenging behaviour has been that of Emerson (1995)

"Culturally abnormal behaviour of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit the use of, or result in the person being denied access to, ordinary community facilities" (Emerson, 1995)

The Royal College of psychiatry and the British psychological society (2007) proposed a modified definition. This definition focused on promoting a better quality of life for individuals and promoting the safety of the person and others around them. It also highlighted the role of the responses of other individuals and services.

"*Behaviour can be described as challenging when it is of such an intensity, frequency or duration as to threaten the quality of life and/or the physical safety of the individual or others and is likely to lead to responses that are restrictive, aversive or result in exclusion*"
(RCP & BPS, 2007)

The current systematic review identified two reviews of challenging behaviour studies that have been published since 2004. Didden et al (2006) conducted a meta-analytic study on effectiveness of behavioural and psychotherapeutic treatments for challenging behaviours in individuals with mild mental retardation. Eighty articles were examined. For each study several study variables and two effect sizes were evaluated (percentage of non-overlapping data PND and percentage of zero data

PZD). This study provided a quantitative analysis of results of single case studies. This study shows that challenging behaviour in persons with mild mental retardation was effectively treated using predominately behavioural intervention methods and, to a lesser degree, with cognitive behavioural packages, such as anger management. Effect sizes were relatively large with the average PND and PZD being 75% and 35% respectively. Findings suggested that studies in which experimental designs and methods of experimental functional analysis were used had significantly larger PNDs than those with SB designs, and descriptive methods. Functional analysis, reliability of recording, generalisation and internally valid designs resulted in larger PZDs. The authors concluded that behavioural interventions for challenging behaviours are effective with people who have mild mental retardation. However, the authors noted that the majority of the studies in the present meta analysis included children and adolescents and that more research is needed with adults.

Heyvaert et al (2010) conducted a meta analysis of intervention effects on challenging behaviour among individuals with a learning disability. Their review looked at 30 studies which employed a range of methodologies including experimental (14), quasi-experimental (10) and natural experiments (10). Studies were rated as medium to high quality. Tests were conducted for heterogeneity including sensitivity, subgroup and meta-regression and publication bias was assessed. Mean effect size was 0.671 which represented a medium to large effect size. Individually all studies had a positive effect but this ranged from very small to large. The major findings from this study were that interventions for challenging behaviour among individuals with learning disability described in the thirty studies were effective with only small differences between the mean effects for biological,

psychotherapeutic and contextual treatments and for unimodal and multimodal interventions. In contrast to claims in the literature that the evidence base of one or other intervention is still rather limited, the effects of this meta-analysis were robust and convincing. Heyvaert et al recommend a focus on the working mechanisms of these successful interventions. This review presents evidence that challenging behaviour among individuals with learning disability can be successfully by using diverse biological, psychotherapeutic and contextual interventions but it is not clear how and why each of these interventions works, either alone or in combination.

Research recommendations arising from the above studies

Didden et al (2006) suggested that future research should extend this literature to adults and older adults, to family and day service settings and to internalising behaviours such as withdrawal, anxiety and depression. Research should consider whether there are common working mechanisms behind these interventions or whether each intervention functions differently. Research should also aim to consider how these treatments work in combination. Heyvaert et al (2010) recommend more longitudinal research focusing on differential effects of these three treatment approaches.

8.3 Aggression

Two further reviews focused on one type of challenging behaviour; aggression. Aggression towards self and others are common referral problems for individuals who have a learning disability. Prevalence rates vary between studies. For individuals in institutionalised settings prevalence rates are generally reported as

high (Linaker, 1994; Bruininks, et al, 1994). Aggression in community settings is also not uncommon (Nottestad & Linaker, 2002). Aggression in the community is a risk factor for hospitalisation, places strain on relationships, places an individual at risk of physical restraint, over use of medication, exclusion from services and being a victim of abuse (Cowley et al, 2005; Jahoda & Wanless, 2005; Jones et al, 2007; McGillivray & McCabe, 2005; Joyce, Ditchfield & Harris, 2001; Strand, Benzein & Saveman, 2004).

The current systematic review identified two reviews which focused on aggression in individuals who have a learning disability. Antonacci et al (2008) conducted a review on the diagnosis and treatment of aggression in learning disability including psychopharmacological and psychological treatment. The authors found that the evidence for psychotropic drugs as a first line treatment for aggression in individuals with learning disabilities is weak but they are still over relied on. The review identified barriers to the implementation of psychological treatments, either alone or in combination for individuals with learning disabilities. These barriers included a lack of interest in the emotional lives of individuals with disabilities who are marginalised and the tendency to attribute emotional difficulties to the individual's disability or to organic causes. Behavioural interventions which have been shown to be effective are not always implemented as they require increased staffing and training compared to psychopharmacology. There remains a debate regarding behavioural versus psychotherapeutic interventions (Sturmey (2005), Beail (2005), Taylor (2005). Two recent review articles were cited within the paper as "addressing the amount of progress (or lack thereof) that has been made in research in this area (Prout & Nowak-Drabik, 2003; Beail, 2005). Prout & Nowak-Drabik, (2003) reviewed 20 years

of literature on psychological interventions which was dominated by case studies and single case designs with few controlled studies. The authors concluded that the evidence is flawed but would seem to suggest that psychotherapy with persons with developmental disabilities can produce moderate benefits and be moderately effective and these effects were consistent across age, level of retardation, technique and theoretical approach. Beail (2005) examined the literature on effectiveness of psychodynamic and cognitive behavioural psychotherapy with people who have learning disabilities. He noted that problem solving and anger management packages were most commonly used and did not find any studies on cognitive behavioural methods that used good experimental designs with sufficient numbers of participants. Beail concluded that progress in research has been negligible and that evidence based research was inadequate in this area.

Oliver-africano et al (2009) conducted a review investigating the efficacy of drug treatment and psychological treatment for “aggressive challenging behaviour” in adults with learning disability. The authors found a paucity of randomised trial evidence which they argued was preventing progress in the treatment of persistent aggressive behaviour. They found very little evidence, based on limited data, for the interventions of anger and behavioural treatment and for the atypical antipsychotic drug, respiridone. On the present evidence, they recommended that the use of drug treatment should be more sparing and reserved for those patients who are putting themselves or others at risk and should be temporary and adjunct to other treatment.

Research recommendations arising from the above studies

Antonacci et al (2008) recommend that research is conducted on treatments for aggression in this population as the evidence is currently only tentative. This area should be examined more rigorously using adequate designs, larger treatment numbers, no treatment groups and reliable and valid outcome measures.

Oliver-africano et al (2009) identify an urgent need for larger randomised studies of psychological interventions which, they argue, appear to have higher benefit- risk ratios than drug treatment but also have a poor evidence base.

8.4 Mental health problems

During the past two decades there have been important developments in research aimed at assessing mental health problems in people with learning disabilities. It is now accepted that mental health problems are not only common in this population but their frequency seems to be approximately 2 to 4 times higher compared to the general population (Rutter, Graham & Yule, 1970; Linna et al 1999; Emerson, 2003; Einfield et al, 2006; Cooper, Smiley, Morrison, Williamson & Alllan, 2007).

Gustaffson et al (2009) completed a survey of systematic reviews which looked at the effects of psychosocial interventions for people with intellectual disabilities and mental health problems. The authors searched 10 databases and found that 3 out of 126 published reviews met the inclusion criteria. The studies reviewed were of mixed designs including RCTs, meta analysis, descriptive and clinical opinion. The authors concluded that there was weak scientific support for behaviour therapy, CBT and

some forms of integrated care and support. However, the studies had methodological shortcomings.

Hassiotis & Hall (2004) stated that interventions based on cognitive behavioural methods appear to reduce aggressive behaviour at the end of treatment but not at follow-up.

Research recommendations arising from the above studies

Future research priorities include more effectiveness studies of good quality and reproduction of high quality systematic reviews. The authors note that an appraisal should be made of how well a particular field is suited to RCTs and advocate that the substantial issues in conducting RCTs with this population should be raised.

The previous two reviews focused on mental health problems in general while two further studies focused on particular mental health problems, PTSD and mood disorders respectively. A final article reviewed the application of cognitive therapy to anger and depression.

Post Traumatic Stress Disorder (PTSD)

Post traumatic stress disorder is a chronic trauma related anxiety disorder based on clear operationalised criteria (American Psychiatric Association, 2000). In the development of PTSD individual characteristics such as developmental level may be of significant importance (Bowman, 1999). A number of researchers have found a link between lower developmental level and severity of PTSD symptoms (van der Kolk & McFarlane, 1996; Breslau, Lucia & Alvarado, 2006; Macklin et al, 1998; McNally & Shin, 1995). Mevissen & de Jongh (2010) argue that it could, therefore, be argued that people with learning disabilities are more vulnerable than the general

population to the effects of trauma. The psychological consequences of traumatic events and life events in people with learning disabilities is becoming of increasing interest (Martorell & Tsakanikos, 2008). A number of studies have found that people with learning disabilities are more likely to experience traumatic events, especially sexual and physical abuse (Ryan, 1994). In a prospective study by Ebensen and Benson (2006) a causal relationship between psychopathological symptoms and previous exposure to traumatic events was found. The authors also found that the effect of exposure to past traumatic events was cumulative.

This systematic review identified one review of psychological interventions in post traumatic stress disorder (PTSD). Mevissen & de Jongh (2010) completed a review of the literature on the psychological treatment of PTSD in individuals with a learning disability. Their review looked at 18 studies, all of which were case studies, some studies included follow up at three or six months. The authors noted a lack of empirically based treatments for PTSD in learning disabilities. Only nine articles were found that concerned the treatment of PTSD in people with learning disability. Interventions included those aimed at establishing environmental changes (e.g. staff training), the use of medication and psychological treatments (i.e. CBT, EMDR and a psychodynamic based treatment). Although these case reports suggest positive treatment effects for various treatment methods applied to clients with mild learning disability, PTSD in people with learning disabilities has proven to be relatively complicated and is still in its infancy. Similarly, Prout & Novak-Drabik (2003) found a moderate effect of psychotherapeutic interventions for PTSD in people with a learning disability but added cautions and limitations regarding their research. The

evidence base in PTSD in learning disabilities is dominated by case studies and single subject designs.

Research recommendations arising from the above studies

The authors suggest that future research should focus on the development of diagnostic instruments to assess PTSD and symptomatology among people who have a learning disability to facilitate research on its prevalence and develop standardised protocols to establish a PTSD diagnosis in learning disability in order to determine whether people with a learning disability are at greater risk for developing PTSD symptoms. There is also a need for the development of evidence based methods for the treatment of people with various levels of learning disability who suffer from PTSD. The authors suggest that a first step might be to systematically evaluate the use of already established methods such as trauma-focused CBT and EMDR.

Mood disorders

Within the population of individuals who have a learning disability mood disorders have traditionally been misdiagnosed, under-recognised and mistreated. Recent epidemiological studies have focused on community samples and have found rates of mood disorders in this population from 3 to 8.1% (Tsakanikos et al, 2007; Bouras et al,2003; Hurley et al , 2003; Cooper et al, 2007).

Antonacci et al (2008) conducted a review on the diagnosis of mood disorders in learning disabilities and on the treatment of mood disorders with pharmacological interventions and psychological treatments. The studies reviewed by this paper were

mainly based on case studies and single case designs with the exception of one study (McCabe et al 2006) that included a control group. Individual and group treatments in the community were reviewed. Results from this review suggested that mood disorders are common in individuals with learning disability but that misdiagnosis and under recognition continue to be a problem for this population. The authors argue that while some progress appears to have been made in using both individual and group psychotherapy approaches with individuals with learning disabilities there has been a lack of research progress. The published literature consists of case studies and single case designs (Benson, 2004).Published reports lack detail when describing the interventions used or the characteristics of the subjects. Interventions lack verifiability and non-standard measures are used to assess outcomes (Prout & Nowak-Drabik, 2003). Research on treatment continues to be inadequate with sparse data and there continues to be an active debate regarding the appropriateness of psychotherapeutic interventions versus behavioural interventions in learning disability (Beail, 2003; Beail, 2005; Sturmey, 2005; Sturmey, 2006; Hurley, 2005; Taylor, 2005; King, 2005).

Research recommendations arising from the above studies

The authors recommend that treatment studies are undertaken to test the feasibility, safety and efficacy of all treatments for mood disorders currently offered to individuals with a learning disability.

Anger and depression

Sturmey (2004) reviewed cognitive therapy with people with intellectual disabilities in the areas of anger management and depression. Sturmey concluded that cognitive therapies can be successfully applied to solve problems presented by some people with a learning disability. The extent to which cognitive therapies can be used has not been answered. Some have suggested that many people with mild or moderate learning disabilities may not have the prerequisites necessary to participate in some forms of cognitive therapy (Dagnan et al 2000). However, since the validity of these screens for readiness for cognitive therapy has not been established and applied to random samples of populations it is uncertain as to what proportion of people with mild or moderate Learning disability can access cognitive therapies.

Sturmey (2004) highlights that there are strict requirements to enable a study to conclude that therapies are effective. Group designs require representative samples and random assignment and individual designs need to meet stringent quality criteria – almost of all the studies included in Sturmey's review do not meet some or many of these requirements. All the papers were multi component so no conclusions can be drawn as to the element of the package of intervention that caused behavioural change. Sturmey concluded that it is likely that behaviour does change in cognitive therapy for some people with a learning disability however how this change occurs is not certain. From his review he argues that there is not currently a strong evidence base for the use of cognitive therapy with learning disability. In contrast ABA and to a lesser degree, psychotropic medications have an evidence base and anger management appears promising.

Research recommendations arising from the above studies

Sturmey (2004) recommends that future research should directly compare cognitive therapy alone with a plausible placebo condition. Sturmey suggests developing a form of discussion about beliefs and evidence for beliefs which does not involve changing key beliefs or schemata. Research should be conducted using well controlled, randomised trials and single subject experimental designs.

Discussion

This systematic review only focused on reviews and therefore missed many of the individual studies that are currently being conducted in the field of learning disability. Learning disability research is a developing area and many studies have not been reviewed. This methodology, which was employed due to time constraints, may not have provided a good understanding of recent and current advances within this area. In order to give a flavour of the current research in learning disability a peer reviewed journal, Journal of applied research in intellectual disability (JARID) was searched for any articles focusing on the effectiveness of interventions in learning disability published between the years 2004-2011.

Table 8.2 Number of articles identified by area from search of JARID (2004-2011)

Year of publication	Anxiety	Depression	Psychosis	Anger	Self harm	Challenging behaviour
2011						2
2010		1				1
2009					1	4
2008			1			1
2007				1		7
2006	1	1				
2005						1
2004						
TOTAL	**1**	**2**	**1**	**1**	**1**	**16**

As can be seen from the table above, the majority of research within the area of effectiveness of interventions in learning disability remains in the area of challenging behaviour. There is however, growing interest in other areas of the lives of people with learning disability. There were a number of studies within this time period which looked specifically at interventions (cognitive behavioural and psychodynamic; these were not limited to a single presentation and were therefore not captured on this table.

This systematic review suggests that research in learning disability remains behind that in other areas of psychological interventions however, there are suggestions that while research is lacking, progression in the use of psychological therapies with individuals who have learning disabilities is apparent in practice (Nagel & Lieper, 1999)

The systematic review is reassuring in that it identified reviews of psychological therapies within a range of presentations, namely, challenging behaviour and aggression, and mental health problems including mood disorders and PTSD. The research suggests that there remains a focus on challenging behaviour within the research at the expense of other presentations however, there is evidence of a growing interest in researching psychological therapies in other areas including PTSD, psychodynamic, mental health disorders and anger (Mevissen & deJongh, 2010; O'Connor, 2001; Taylor et al , 2002).

Methodological considerations

The reviews have highlighted a number of methodological issues within research in the field of learning disability. The nature of the evidence in learning disability ranges from expert opinion, through uncontrolled and controlled single-subject designs to randomised controlled trials. The UK National Health Service (NHS) Executive has stated that "in the absence of well-designed randomised controlled trials, clinicians may legitimately draw upon analysis of expert opinion and past experience" (NHS Executive 1996). The NHS however acknowledges that RCTs are the highest level of evidence. Within the field of learning disability there is a lack of RCTs.

Oliver et al (2002) presented the difficulties encountered in setting up RCTs of community interventions Difficulties include ethical considerations (randomly assigning individuals to treatment and non treatment groups, informed consent), methodological considerations (people with learning disabilities may require longer time to change, sample size) and service capacity issues (time and resources, waiting times). The authors conclude that it will take time to develop rigorous academic research in the field of learning disability which will require multidisciplinary professional enthusiasm, cooperation and collaboration between academic institutions and health agencies. Sturmey (2005) stated that the absence of methodologically adequate studies of "traditional psychotherapy" for individuals with mental retardation means that behavioural supports "must remain the preferred treatment option for people with mental retardation" (Sturmey, 2005 p 56.) King (2005) refuted this claim and stated that practice-based evidence suggests that psychotherapeutic support can be life-enhancing. Beail (2005) concluded that the lack of evidence does not mean that non-behavioural interventions are not effective**.** Taylor (2005) stated that people with learning disabilities have the same rights to

access psychological therapies as other populations. He acknowledged that there is limited but growing evidence on the efficacy of psychotherapeutic approaches within the population and concluded that it was premature to conclude that behavioural approaches were superior to other approaches on the basis of the current evidence.

The reviews included in this systematic review highlighted the need for good quality designs, larger treatment numbers, no treatment groups and reliable and valid outcome measures including longitudinal research. It is recommended that more research is completed looking at the focus on the working mechanisms of successful psychotherapeutic interventions and on the development of guidelines and protocols for therapists.

The research calls for larger randomised studies of psychological interventions but also good quality studies using other methodologies including single subject experimental designs and high quality systematic reviews as well as building up an evidence base from clinical practice (RCP & BPS. 2007). Given the ethical considerations of RCTs in this population, Sturmey (2005) suggests developing acceptable placebo conditions which may be more ethical.

The recommendations from the joint RCP, BPS, RCSALT (2007) recommended that future research should focus on the development of a set of outcome measures for interventions in the assessment and management of the behavioural challenges of people with learning disabilities. Particular focus should be placed on measuring the outcomes of interventions with carers, staff teams, and other systems. One way to overcome the methodological concern of low participation numbers is to work

collaboratively with other services to ensure an evidence base is built up by using agreed outcome measures as is currently being trialled by the British Psychological Society Faulty of Learning disability across the UK in the area of Challenging behaviour. Future implementation of good practice should also include more collaboration with service users and carers.

The Equal Lives Review has concluded that progress needs to be accelerated on establishing a new service model, which draws a line under outdated notions of grouping people with a learning disability together and their segregation in services where they are required to lead separate lives from their neighbours. The model of the future needs to be based on integration, where people participate fully in the lives of their communities and are supported to individually access the full range of opportunities that are open to everyone else. Good quality research should therefore be a priority to help design services that are accessible and effective for individuals who have a learning disability. Current barriers to accessing psychological therapies should be acknowledged and services should work to ensure increased accessibility for this marginalised group within society.

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9. Psychological Therapies Research in Northern Ireland

Regional survey methodology: As noted earlier (section 1) a regional survey was sent to psychological therapies managers across the five HSC Trusts, to relevant schools and departments within the universities (e.g. psychology, medicine, social work, nursing), to the translational research groups and to the main voluntary and charity sector organisations in Northern Ireland who provide therapy or counselling to people with mental or physical health presentations and / or who have a related research unit. In addition to profiling psychological therapies delivered (see section 3) we wished to profile regional research programmes related to psychological therapies.

Established research programmes should inform future research priorities as existing research infrastructures, resources and expertise are likely to offer a fertile base for future research initiatives. In addition to the research returned through this survey (see Appendix 1) research related to psychological therapies in Northern Ireland was gleaned from the web pages of relevant institutions and organisations as well as via the results of the rapid reviews summarised in previous sections. Only research published in the last 10 years was included. Research outputs (i.e. publications) were used to index active research programmes and these were indeed consistent with supplemental narratives of ongoing research in the organisation when provided. Only psychological therapies research related to health (mental and physical) was included (e.g. psychological interventions with educational or social objectives were excluded).

Research classification: As outlined in the survey (Appendix 1), three classes of research activity were deemed relevant to this review. Firstly, we were interested in scientific research into the efficacy or effectiveness of psychological therapies which was of an international / national standard such that it was published in scientific and peer reviewed journals.

However, as emphasised by Roth and Fonagy (2006), in order to prevent ossification and allow paradigm shifts, psychotherapy research should not restrict foci to therapies of previously demonstrated efficacy. New interventions are systematically developed by first researching psychosocial processes which directly bear on the onset and course of clinical problems and then demonstrating that change on these processes leads to therapeutic change. This then allows therapeutic protocols and procedures to be formulated which can then be tested in intervention studies and clinical trials. Thus we were secondly interested in research programmes into processes related to clinical problems which had direct implications for psychological therapies and interventions. Again we were interested in research which was of an international / national standard such that it was published in scientific and peer reviewed journals.

Finally, given current regional and national imperatives to develop an outcomes framework for psychological therapies and mental health services (see section 3 above) and given that evidence of efficacy in research trials is not evidence of effectiveness when translated into multifarious clinical services, we invited respondents to return formal (published or publically available) reports of psychological service evaluations. Whilst recognising that this is more difficult to

quality assure (as these are not always published in peer reviewed journals), the issue of practice based outcomes research was deemed sufficiently important in order for us to attempt to sample practice therein.

A summary of the research returned is outlined along thematic lines in Appendix 2. It is recognised that the data collection procedure, and the tight turnaround schedule for this rapid review, may mean that some relevant research programmes or outputs were not returned. However, the net was cast widely and informal contacts between the review team and researchers across the region (who themselves were able to signpost us to anything missed) would suggest we have attained a reasonably comprehensive and representative sample of targeted research.

Published trials of psychological interventions: As summarised in Appendix 2, there was a relatively small number of returns in Northern Ireland which directly involved psychological therapies outcome research. Given that such research is highly resource intensive, costly, challenging in terms of maintaining scientific fidelity across the time of an intervention and follow-up, and increasingly requires multi-centre sites, this is perhaps unsurprising.

Nonetheless a number of psychological therapies research groups exist – all of whom have additional programmes of research into psychological processes related to the onset and maintenance of clinical disorders (see below). Research in this specific category ranged from controlled trials (e.g. Duffy et al., 2007; McCusker et al., 2010) through to cohort studies (e.g. McConkey et al., 2008) and single case experimental designs (e.g. Campbell et al., 2007; McLaughlin et al., 2008). Research

incorporated both trials of established therapeutic protocols applied to NI clinical contexts (e.g. Gillespsie et al., 2002; Wilson and Manly, 2003) as well as trials of originally developed interventions which synthesised elements of established therapies into newly established early intervention protocols for specific populations (e.g. Jones et al., 2009; McCusker et al., 2010; Semple et al., 2009). The clinical populations targeted by these intervention research studies included:

- Trauma survivors – of terrorist atrocities as well as of other adverse events (e.g. Coulter, 2011; Duffy et al., 2007; Gillespie et al., 2002);
- Children with chronic illness and disability and their families (e.g. McConkey et al., 2008; McCusker et al., 2010);
- Adults with neurological and other physical health presentations (e.g. Jones et al., 2009; Semple et al., 2009; Wilson and Manly, 2003);

The focus of these research programmes is generally consistent with the policy and strategy context of the NI DHSSPS in relation to psychological therapies, preventative interventions, autism, brain injury, mental health and well being and people with long term conditions (see section 3).

Research with direct implications for psychological interventions: This represented returns which appeared to the review team to investigate processes related to the onset and maintenance of clinical disorders and which had, consequently, direct implications for psychological therapies and interventions as noted above. This was a much broader and deeper vein of research activity and incorporated returns from both universities and across schools (e.g. psychology,

nursing, social work). However, it was of note that alongside delivering psychological therapies and interventions, complementary research activity, typically in collaboration with the universities, was evident in all four health Trusts who made a return as well as third sector organisations.

Research returns in this area are outlined in Appendix 2. Seven thematic clusters were apparent.

i. **Trauma and psychosis** – this extensive research which crossed both universities, the mental health TRG and several health Trusts, has been predominantly examining how historical trauma and adverse events mediate outcomes in psychosis and severe and enduring mental illness. Research has involved both statistical modelling of associations through secondary data analysis of existing population datasets (e.g. Murphy et al., 2010; Shevlin et al., 2010) as well as original empirical research with clinical populations in the region (e.g. Mulholland et al., 2008; Shannon et al., 2009). Implications for clinical management and psychological interventions are clearly apparent.

ii. **Trauma of the troubles** – although the trauma of the troubles was a unifying theme here, these returns had more dispersed foci across the various research teams involved. Sub-themes here included systemic therapy approaches to helping children and families cope (e.g. Reilly et al., 2004), trauma-focused cognitive therapy in the context of ongoing conflict (e.g. Duffy & Gillespie, 2009), the development of a tool to measure troubles related trauma (e.g. Dorahy et al., 2007) and profiling mental health outcomes in the context of the troubles (e.g. Ferry et al., 2010). Again all this research, which came from both universities, the

statutory and the voluntary sector had strong relevance for psychological therapies and intervention – practice and research.

iii. **Determinants of outcome in child physical and mental health** – psychological processes, and relevance to intervention, in various *physical* health presentations was a marked theme of research returns in general. This was most apparent in the returns received related to child health. Research across the universities and the Trusts has been highlighting how psychological, family and social processes impact on adjustment and outcomes in chronic childhood illnesses including congenital heart disease, cerebral palsy, cystic fibrosis, cancer and brain injury (e.g. Casey et al., 2010; Doherty et al., 2009; Parkes & McCusker, 2008). Moreover, as highlighted above, some of this research has already translated into developing the psychological intervention protocols implicated and evaluating these within clinical trials (e.g. McCusker et al., 2010). Research related to maternal mental health and mother – infant attachment was also represented here (e.g. Dickson et al., 2005; McCormack et al., 2011; White et al., 2008). A smaller, but growing body of research into the mental health needs of looked after children was also evident (e.g. Coman & Devaney, 2011; Cousins et al., 2010). The latter take a regional focus and look certain to deliver implications for psychological interventions for this population.

iv. **Psychological processes in physical health** – complementing the above research into child health presentations was work across the Trusts and universities examining how psychological processes (stress, appraisal, coping etc.) mediate adjustment across a range of physical health presentations of adulthood such as cancer, diabetes, cardiopulmonary disorders and medically unexplained symptoms (e.g. Dempster et al., 2011; Lally et al., 2010; McCorry et

al., 2009). There was also evidence within this research theme of investigating psychological processes underlying infection prevention measures in our hospitals (e.g. Hanna et al., 2009). Consistent with the policy and strategy priorities outlined in section 3, this research again builds a case for specific aspects of the psychological, "talking", therapies in physical health services.

v. **Outcomes following brain injury** – the *Regional Acquired Brain Injury Unit* (RABIU) within the BHSCT has been a centre of excellence with a pivotal role in delivering on the *Brain Injury Strategy* (DHSSPS, 2010) referred to in section 3. A strong research culture appears to exist therein, in collaboration with the universities, with neuropsychological intervention research as noted above (e.g. Wilson et al., 2003) being complemented by work examining factors mediating neuropsychological outcomes and adjustment therein (e.g. McBrinn et al., 2008; Wilson et al., 2009). Related work in other Trusts was also evident (e.g. Rauch & Ferry, 2001). As noted, these research returns bridged both aetiological and intervention research.

vi. **Mental Health outcomes in learning disability** – collaborative work between UU and the Trusts has been investigating risk and protective factors for mental health problems in people with a learning disability (e.g. Taggart et al., 2009), the impact of hospital admissions on challenging behaviours (e.g. Slevin et al., 2008) and the development of screening tools to improve awareness and detection of the psychological difficulties in this population (e.g. Devine et al., 2010). As highlighted in the rapid review of psychological therapies in learning disability, research in this area is at a much earlier stage of development when compared to therapies in adult mental health for example. This regional work is contributing

to this emergent knowledge base again with distinct implications for the provision of psychological assessments and interventions.

vii. **Psychodynamic processes in therapy** – finally, there were a small number of returns from two third sector organisations which suggested research directly related to the delivery of psychodynamic psychotherapy (e.g. Hobson & Kapur, 2005; Sweet, 2011). Although not particularly focused on the needs of specific clinical populations within the region, such research is consistent with the research priorities of the DHSSPS (2010) *Strategy for the Development of Psychological Therapy Services*, in terms of advancing knowledge bases related to psychological therapies as delivered in Northern Ireland.

Service evaluation research: Returns suggested that formally reported outcome, or service evaluation, research was not common. Although this is not to say that routine outcomes monitoring is not occurring in services, few publically available reports or publications were returned. Those outlined in Appendix 2, however, straddle both the statutory and voluntary sectors and relate to mental and physical health services for children as well as adults. Some were of sufficient quality to be published in peer reviewed journals (e.g. Gordon & Russo, 2009; McMurray & Davies, 2006; Scott & Hutchinson, 2007; Teggart & Linden, 2006) with innovative and rigorous approaches to outcomes and service evaluation apparent.

Clearly this sort of research has different objectives from the formal research outlined above. Attention to rigorous research criteria – e.g. control groups and procedures, validity and reliability of measures and attention to statistical significance and clinical effect sizes – is not so essential. Rather such research is concerned with

checking whether the operational service, which is likely to be using therapies of demonstrated efficacy, actually "works" in everyday clinical practice. This is an important objective – gaining in importance in the light of expansion of the talking therapies, mental health priorities of government and the increasing emphasis both national and regional administrations are placing on outcomes driven health services (DOH, 2010; DHSSPS 2011b). In this context, the diversity of approaches to service evaluation and outcomes monitoring may not be so helpful as requirements for answers to more standardised questions emerge and for comparison across service delivery models and contexts as noted above for the IAPT services.

Summary and comments: The results of this "grey" review of research, specifically within Northern Ireland, suggest a number of currently active programmes directly related to psychological therapies or with clear implications for practice therein. Some research groups were engaged in both types of research (e.g. child health and disability) and some extensive research programmes appeared to have matured to such an extent that intervention trials appear indicated (e.g. trauma and psychosis).

The research foci outlined in this section could perhaps be collapsed further into two overarching themes:

- Psychological interventions in chronic illness and disability in child and adulthood (including learning disability and neurological presentations);
- Trauma and mental illness (including psychological therapies therein).

The psychological therapies and interventions which have been the focus of evaluations within these two overarching programmes, or which are implicated by the findings of the research therein (e.g. cognitive-behaviour, systemic, psychodynamic, narrative, parent and communication training, psychoeducation etc.) have been supported in the rapid reviews as efficacious or promising. They are also represented in the range of therapies embedded within health service provision in both the statutory and voluntary sectors as outlined in Table 1 (section 3).

The focus of the psychological therapies related research in Northern Ireland is consistent with policy and strategy of the regional administration. Thus the *Bamford Action Plan* (DHSSPS, 2009) and the *Strategy for the Development of Psychological Therapy Services* (DHSSPS, 2010) both call for psychological therapies research to support and inform the delivery of the talking therapies to a range of populations in need including those with trauma, severe and enduring mental illness and those children and adults whose psychological adjustment is challenged by chronic illness or disability. The groups included in the recently formulated 10 year strategy for mental health and well-being (DHSSPS, 2011a) are wide and varied and certainly emphasise the clinical populations who have participated in the above research programmes.

As noted above, psychological therapies research in Northern Ireland is clearly not solely within the domain of the universities or research institutes. Although the latter appeared involved in almost all cases, these programmes of research appear to be well embedded within clinical services as collaborating partners and have thus been directly informed by clinical perspectives and needs therein.

Two final observations may be made. Firstly, although these research programmes are consistent with regional strategies as noted above, there are some surprising omissions of relevance. For example there is little research evident in the region related to the autism, stroke, dementia or stepped primary care priorities (DHSSPS,2007, 2009, 2010). Secondly, although relatively few in number, it would appear that existing research programmes which relate to the same two over-arching themes identified above, are unnecessarily separated by institutional or organisational boundaries. A coming together of these research groupings, within an over-arching centre for psychological therapies research, would appear of potential - with benefits of sharing of expertise, collaboration and resource.

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10. Conclusions and Recommendations

The importance of psychological therapies research: In considering how the information summarised in this paper might inform psychological therapies research priorities, one runs the risk of being overwhelmed by the sheer volume of possibilities for future research. The conclusions of the rapid reviews, the policy context for psychological therapies in Northern Ireland, current needs and practices and the potential within existing research programmes in the region to advance psychological therapies research, all suggest a great many foci would be of relevance to health service needs and the wider health and well-being of society.

Perhaps, however, the primary conclusion of this paper is that overall, there is a clear driver to promote and support research which is directly about psychological interventions *per se* – with specific decision making informed by the four factor model outlined below (see Figure 1). Although some psychological interventions research expertise certainly exists (see section 9), the relative balance of research outlined in Appendix 2 is heavily weighted towards psychological processes and aetiologies of clinical problems, rather than advancing this towards the development and evaluation of consequent interventions. This probably reflects the pattern within national and international research, although this may be changing. Within many domains we perhaps know enough now about how adverse life events, cognitive appraisals, coping and parenting skills etc. affect mental health and well-being or child adjustment in order to start to inform and shape care pathways and treatment protocols accordingly. There is a case that the balance of research now needs to shift towards the development or refinement of consequent treatment programmes and protocols within rigorous outcome research frameworks. Research and

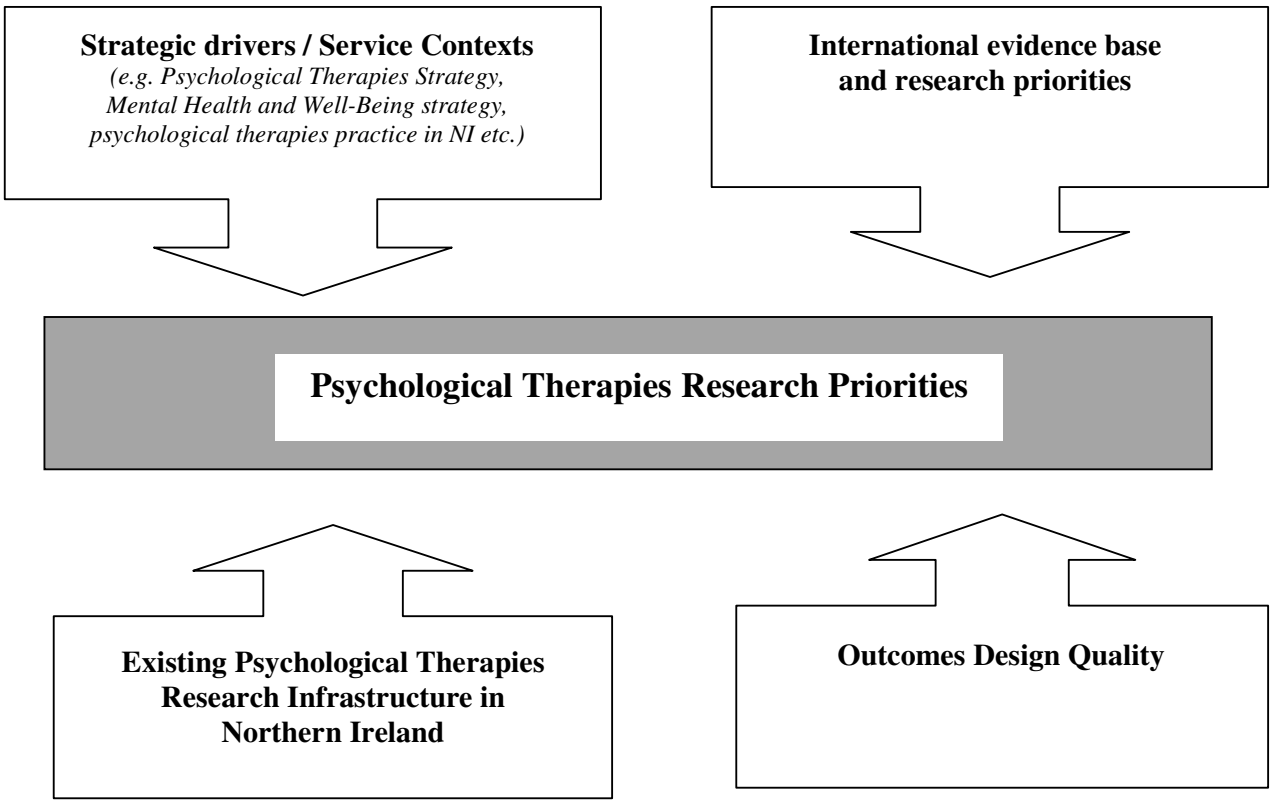
development agencies, both regionally and nationally, appear to recognise this as they now place an emphasis on "translational" research. Whilst continuing to accommodate the sort of research related to processes and aetiologies (as this has translational potential), in the current climate of economic challenge, research which directly shapes practice, consistent with policy, should be prioritised.

Informing the practice of psychological therapy provision is of clear national priority. There is currently unprecedented recognition of how important psychological therapies and interventions are, not just for improving mental health and well-being, but for multifarious indicators of the health of the nation including life expectancy, educational achievement, employability and productivity (DOH, 2011). With NICE guidance, and the evidence of the current rapid reviews, having established the case for the utility of psychological interventions for a whole range of mental and physical health presentations, the commitment to improve access to psychological therapies across a range of prioritised populations and groups (DHSSPS, 2010; DHSSPS, 2011a; DOH, 2001) must be supported and informed with research which "catches up" with these actioned aims and objectives.

A model to inform decision making in commissioning psychological therapies research: Having established the case for prioritising psychological therapies research in healthcare *per se*, a decision making process must take place which informs specific research calls**.** This paper has been implicitly underpinned by the model (summarised in Figure 1) which suggests that specific commissioning should be informed by four factors.

1. The first of these relates to **strategic drivers and service needs**. These were primarily considered in sections 2 – 3 of this report (and above) and fundamentally suggest increasing importance and emphasis on psychological therapies and interventions across a range of healthcare specialisms for personal, societal and economic benefits. The regional psychological therapies strategy for Northern Ireland (DHSSPS, 2010) highlights the importance of research on mental health and learning disability to support the strategy and indeed supporting related research is one of its final recommendations. However, the strategy has little to say about which particular area of mental health and learning disability should be prioritised and the strategy itself is inclusive in attending to the psychological needs of mental and physical health presentations across the lifespan.

Figure 1: A model to inform commissioning of psychological therapies research



The mental health and well-being strategy for Northern Ireland (DHSSPS, 2011a) is an even more wide-ranging and ambitious document. This highlights mental health and well-being priorities for the region across primary care services (anxiety and depression), physical health presentations, medically unexplained symptoms, occupational health, psychosis, maternity services, child mental and physical health, looked after children, forensic and addiction services and older adults. The list is not exhaustive. However, the message across the strategy is unequivocal. All should have access to psychological assessment and early psychological interventions where indicated.

There are a number of specific strategic priorities in the domains of mental health which are currently supported by DHSSPS. These include autism, eating disorders, personality disorder, acquired brain injury, stroke, dementia and long term conditions (see section 3). These may inform research commissioning but it would be short-sighted to restrict commissioning to these specific domains. Research has a longer latency to deliver than service reconfiguration, which has commenced in any event within these domains, and it is likely that further specific strategies will continue to emerge in line with the over-arching mental health and well-being and psychological therapies strategies described above.

A further over-arching strategic priority, of regional and national significance, is the development of an outcomes framework for mental health services. This is specifically referenced in the psychological therapies strategy (DHSS, 2010, pp.8 -9) – "a prioritised plan for research on mental health and learning disability should be developed *and should incorporate measurement of the effectiveness*

of psychological interventions" (italics added). As noted in section 9, current service evaluation outputs in the region, related to therapeutic outcomes, use disparate research frameworks and philosophies and are unstandardised in terms of key outcome measures in mental health.

The requirement for an outcomes framework for mental health and learning disability services, however, is assuming increasing policy significance in light of the government and regional administration's new emphasis on "recalibrating" the NHS so it focuses on health outcomes (DHSSPS, 2011b; DOH, 2010). The research community clearly have a huge contribution to make here in developing or adapting outcome measures which have robust psychometric properties to make them fit for purpose. At present there are many difficulties with when and how to employ generic –v- disorder specific measures, with measures related proximally to therapeutic interventions –v- distal symptom gains, their generalisability across services and clinical specialisms, benchmarking of gains, minimising missing outcome data points and capturing outcomes for the range of direct and indirect work undertaken (Roth and Fonagy, 2006).

Moreover, the case has been convincingly made (Barkham et al., 2008; Cahill et al., 2010) that we need to extend research trials of psychological interventions beyond rarefied research contexts, where the very aspects of ecological validity for clinical services (e.g. co-morbidity, patient diversity, sub-threshold diagnoses etc.) are often selected out as confounding variables. Barkham's group argue for, and highlight templates for "practice based" research trials. These involve introducing greater outcome design rigour and standardisation of therapeutic

services and outcome measures utilised, into the participating clinical research network (e.g. psychological therapies services in primary care across a region) to compare therapeutic outcomes across different therapies or indeed with traditional wait list control groups or phases of intervention. This certainly transforms traditional service evaluation research into work of generalisable research significance, but maintains the critical focus of determining whether therapies of demonstrated efficacy actually translate into clinical effectiveness in clinical services across the region. The IAPT outcomes framework offers a useful benchmark in this regard (www.iapt.nhs.uk).

2. The second factor we have reviewed which should inform psychological therapies research commissioning is **international evidence base reviews**. These have been conducted for psychological interventions with adults and children with mental and physical health presentations as well as people with a learning disability. Taking the results of the rapid reviews together a number of conclusions relevant for commissioning here appear relevant.

2.1 CBT as a therapeutic approach has received recommendation from NICE; been evidenced as effective in research trials and been implemented in practice across all of the populations and clinical areas investigated. The theoretical model unpinning the application of CBT was informed and developed originally for adult mental health presentations of anxiety and depression and has been translated to wider clinical areas and populations. This translation however requires adaptation of the intervention to different populations. As such, while there is proven efficacy of CBT for adult

presentations, further research into its adaptation to other groups is warranted.

2.2 The current rapid review aspired to identify the highest quality evidence based research available. In so doing we affirmed the currently held beliefs that each clinical area is at a very different developmental stage of research design. This 'gap' between areas could be addressed by actively promoting research in latent areas, applying different quality frameworks to each area and by endorsing involvement in multi-centre trials in order to attain sufficient numbers for power and to cope with the challenges of attrition across the period of intervention and follow-up.

2.3 Much of the research identified in the reviews acknowledged the need to compare psychological therapies with interventions which are equivalent in terms of intensity, duration, therapist characteristics etc, rather than with waiting list or treatment as usual controls. This would also allow a greater discrimination of the relative 'added-value' of specific interventions.

2.4 The majority of clinical trials are designed to exclude individuals with co-morbidity and limited motivation (attrition rates). This compromises the transferability of research into practice and highlights the increasing importance of prioritising practice based research rather than 'pure clinical trials'.

2.5 The aim of psychological therapies is to reduce symptomatology and improve functioning and quality of life. The effectiveness of a therapy is judged by its ability to achieve this goal and to maintain and generalise these effects beyond discharge. Many research studies however identified that the period of follow-up is typically insufficient to capture the longer term benefits

of therapy and to judge whether interventions targeted early in a person's life or in the course of their illness will have longer-term preventative value.

3. Thirdly, the rapid reviews summarised in preceding sections, the systematic reviews referenced therein and indeed the original intervention trials which feed into both, highlight the many problems and difficulties with this sort of research. The lessons of the historical knowledge base thus suggest a quality framework for **outcomes design criteria** which should be used to inform future commissioning:

   3.1. The rapid reviews show that there is clearly a hierarchy of research designs as far as the internal validity of psychotherapy research is concerned. These range from randomised controlled designs (RCTs) and controlled trials without randomisation (quasi-experimental designs), through to cohort studies without controls and single case experimental designs (often with control conditions included). However psychotherapy interventions require much more commitment, time and resources from patient participants, researchers and funders than medical research where the intervention might simply require administering a drug (-v- attending weeks or months of therapy sessions with therapists trained to deliver same in a standardised way and lasting an hour or more). Thus RCTs, for example, are not so routine in psychotherapy research and are especially less common in emergent areas of outcome research (e.g. learning disability) than others (e.g. adults with anxiety and depression). Consequently, the stage of the evidence base in a particular area should be considered in conjunction with the level of the

outcomes design. It would not make sense to proceed to more costly and intensive RCTs for example, before efficacy has been shown as promising in designs of less rigour but more practicality. However, if control groups cannot be incorporated attention to control and validity issues should be observed in other ways (e.g. triangulation of data, process-outcome mapping, clinical effect size changes in relation to reference group norms etc.).

3.2. It is important that psychological interventions are clearly described in an operational fashion, preferably, but not essentially, with an associated manual which may vary in operational definition according to the nature of the intervention (e.g. parent training or CBT interventions may lend themselves to greater manualisation than psychodynamic or systemic interventions). The theoretical knowledge base underpinning and driving the intervention should be clear.

3.3. The patient group to whom the therapy is applied should be clearly described and, as noted above (Barkham et al., 2008), judgements need to be made about how far to prioritise internal validity by diagnostic homogeneity over external validity considerations of including a greater diversity of patients with co-morbid conditions etc. more akin to those who actually present to clinical services.

3.4. A huge amount could be written about measurement criteria in psychotherapy research (see Roth and Fonagy, 2006 for a review). In sum, however, there is a need for careful attention to the inclusion of valid and reliable primary, but also secondary, outcome measures across different symptom and functioning domains and for measuring what is actually targeted by the intervention (e.g. coping skills) as well as the theoretically

hoped for consequences of such gains (e.g. reductions in depressive symptoms and improvements in social functioning). Most importantly quantitative designs need to attend to indices of clinical, as well as statistical, significance (Kazdin, 1994) as the clinical effect size is ultimately what allows the clinical relevance of any change to be gauged as well as permitting comparison across intervention studies with different populations and measures.

3.5. Finally, the review process highlighted the variability in follow-up periods post interventions. Whilst these inevitably push costs further up and can challenge experimental conditions hugely (e.g. loss of randomisation and power through attrition) the maintenance and / or developments in gains is an important question. Early intervention, prevention, studies (e.g. of mother – infant attachment training) for example, may only show measurable benefits years after the intervention has ended. Moreover, most recently the importance of follow-up was highlighted when NICE guidance on pharmacological and behavioural interventions for *Attention Deficit Hyperactivity Disorder* (ADHD) changed significantly as a direct result of evidence pertaining to the *long-term* consequences of pharmacology only treatments becoming apparent (NICE, 2008), consequences which had not been apparent at earlier phases of the intervention trials research.

Such criteria when applied to commissioning and publishing research in the psychological therapies highlight why increasingly RCT level studies can rarely be successfully completed outside of a multi-site context. Centres in this region could usefully participate in such trials but, as also noted above, earlier phased

research into therapies and conditions with less of a psychological therapies knowledge base, to date, would make appropriate and useful contributions to the development of same. In addition, Barkham's call for practice based research networks, as well as being more cost efficient, would appear to be emerging as a complementary research avenue for psychological therapies research.

4. The fourth factor outlined in Figure 1 to be considered in commissioning psychological therapies research in Northern Ireland is the **existing research infrastructure** in this area in the region. This has been described in detail in section 9 and in Appendix 2, with partnerships between the universities and statutory and third sector services being the norm.

   It was encouraging to see a vibrant range of research with direct implications for psychological interventions, some of which had already commenced translation of the knowledge gained from process studies into trials of psychological interventions (see section 9). As noted, two over-arching research themes appeared to define these programmes (a) psychological interventions in chronic illness and disability in adult and childhood (including learning disability and neurological presentations and (b) trauma and mental illness (including psychological therapies therein). Building on this existing expertise, regional knowledge base and resources could usefully inform future research priorities. However, it was also noted in section 9 that this should not restrict foci from other strategic priorities (e.g. stepped care in the delivery of psychological therapies). Moreover, it was suggested that there may be benefit in bringing the expertise

and resources of these research grouping together in a way comparable to other research centres in the region.

Summary and recommendations:

1. Policy and strategy reviews suggest the current recognition of the importance of, and strategic investment in, the psychological therapies across healthcare, by national and regional government, is unprecedented. The argument for the efficacy of psychological therapies is accepted and psychological interventions are widely recommended in NICE guidance for a huge range of mental and physical health presentations. Benefits have been recognised for the individual's quality of life but also for the health of the nation in terms of life expectancy, educational achievement, employability, productivity and savings on healthcare and disability costs. Research related to the development and delivery of psychological therapies for specific populations should complement and inform these initiatives.

2. A four factor model is presented to inform specific research commissioning in the region. These factors relate to current strategic and practice drivers, the stage of development of the evidence base for specific therapies and conditions as suggested by international review, an outcomes design framework and the opportunity to capitalise on existing programmes of research in the region related to psychological therapies.

3. Current regional strategies for psychological therapies and mental health and well-being emphasise the importance of psychological interventions for a range of conditions but have little to say about specific research priorities. The

range of psychological therapies being applied in the region to a diversity of populations and presentations also suggests a wide canvas for research relevance. However, research is currently well developed in the region into research related to psychological interventions in chronic illness and disability in child and adulthood and trauma and mental illness. These areas appear promising for future development and should accommodate further sub-themes which may develop. A bringing together of research groupings within a psychological therapies research centre may be fruitful.

4. This said, there appeared a need for outcomes research which (a) informs the development of an outcomes measurement framework for mental health specialisms and (b) which complements traditional internally valid research with “practice based” outcome research of greater external validity. Thus application of the criteria for judging outcomes design quality needs to be applied in a weighted and informed way to the stage or phase of the research in the particular conditions discussed in the rapid reviews and to the ultimate aim of the research endeavour.

Appendix 1 – Regional Survey of Psychological therapies Research and Practice

Dear Colleague,

Psychological therapies and interventions – research and practice and in Northern Ireland

We are writing to invite you to highlight any work in your unit, department or organisation related to the *Bamford Implementation Rapid Review* of practice and research in psychological therapies in Northern Ireland.
As you may be aware, the Public Health Agency HSC Research and Development Division have commissioned a number of Rapid Reviews to support the implementation of the 2009 *Bamford Action Plan*. The information you submit will inform the Rapid Review of psychological therapies, which ultimately aims to identify priorities for future needs-led research.
The enclosed survey has two aims:

1. To profile the range of psychological therapies and interventions delivered across a range of statutory, voluntary and private sector services in NI. There will be no attempt to map therapies to named services or professional groups. However, we would intend to map therapies provided to service delivery contexts (e.g. in-patient –v- community) and clinical populations (e.g. adult mental health, older adults, child health etc.).

2. To profile psychological therapies research, and research directly related to psychological therapies and interventions, in NI.

The review is, by necessity, rapid with a short delivery period. We are, therefore asking that you return the enclosed survey **NO LATER THAN 28th February 2011** as an e-mail enclosure to jennifer.coulter@belfasttrust.hscni.net. Completion of the questionnaire should take approximately 5 – 20 minutes. If you have any questions or queries which you would like to discuss before completion please do not hesitate to contact any of the rapid review group on the contact e-mails as listed.
With thanks in anticipation.

Psychological therapies and interventions – practice and research in Northern Ireland

Section A: Respondent Context

1. Which of the following categories describes the service, organisation or group you lead or manage in relation to the *delivery of services* or *conduct of research* related to psychological therapies and interventions *(please put an "X" beside all which apply)*:

A department / unit / division / which deliver psychological services in the statutory sector (e.g. community mental health service, CAMHs, psychology department etc.)	
A department / unit / division / which delivers psychological services in the voluntary / charity sector	
A department / unit / division / which delivers psychological services in the private sector	
Other unit / division / department which delivers psychological services - *please specify* –	
Academic / research / training department, unit or organisation – university hosted	
Academic / research / training department, unit or organisation – in voluntary / charity sector	
Translational Research Group	
Other – *please specify* –	

Section B: Delivery of Psychological Therapies / Interventions

The purpose of this section is to *sample* scope the range of psychological therapies and interventions delivered in Northern Ireland and to map therapies to service delivery systems and patient / client populations. There will be no attempt to map therapies and interventions to named services or professionals groups.

2. Does the service you lead or manage deliver psychological therapies / interventions? *(Please underline as appropriate)*

YES	NO

If NO proceed to Section C

If YES please complete the following table for each main clinical population seen within your service:

Population – e.g. child mental health, learning disability, adult mental health, physical health, paediatrics, older adults, severe and enduing mental illness, personality disorder, neurological etc. (list not exhaustive)

Service delivery context – e.g. primary care, secondary care, in-patient, voluntary sector, acute hospital etc.

Psychological therapies / interventions – e.g. psychodynamic, behavioural, cognitive-behavioural, systemic, humanistic, psychoeducation, EMDR, interpersonal, family, parent training, cognitive remediation, solution focused, counselling, narrative etc.

There are hundreds of defined psychological therapies and, although they tend to fall under one of the five main schools of psychotherapy listed at the outset of this list we encourage you to describe the therapies practiced in your unit in the way you deem most appropriate.

Population	Service delivery context	Psychological therapies / interventions

Section C: Research

3. Please list (or attach) references for all *peer-reviewed* publications (books, chapters, scientific or professional practice journals), which relate to the development, implementation or evaluation of psychological therapies and interventions, which you or staff in your service have published *over the past 10 years*. (Add rows if required).

4. Please list (or attach) references for all *peer-reviewed* publications (books, chapters, scientific or professional practice journals), which have and discuss *direct implications* for psychological therapies and interventions, which you or staff in your service have published *over the past 10 years*. This might include, for example, research into risk and protective factors for a given mental or physical health presentation. (Add rows if required).

5. Please summarise titles and principal investigators, of *currently active and funded* programmes of research, within your service or unit, which relate to the development, implementation or evaluation of psychological therapies and interventions. Please ensure the relevant clinical population is noted in the title. (Add rows if necessary).

6. Please think about any *publically available* reports (not published in peer-reviewed outlets) of *evaluations* of psychological therapies or interventions within your service / unit / department. Please list titles and authors of up to the *best three* examples of such reports produced *over the past 10 years*.

7. Name of person completing response:
   _____
8. Position within department / service / group:
   _____
9. Date of response:
   _____

Thank you for your time and assistance in contributing to this survey. Please forward your completed response as an enclosure to jennifer.coulter@belfasttrust.hscni.net.

Respondents

Statutory
BHSCT (Child, Neurosciences, LD, AMH, Health, Psychotherapy)
NHSCT (AMH, LAC, LD, Addictions)
WHSCT (Forensic, Psychosis and recovery, Brain Injury)
SEHSCT (LD, AMH, Older adults)

Voluntary / Charity
NICAS
Cancer Life Line
Threshold
NIAMH
Life-Line / Contact Youth
Action Cancer
NICTT

Universities / TRGs
University of Ulster (Nursing, Psychology, Rehabilitation)
Queen's University Belfast (Psychology, Social Work)
Trauma and Psychosis network

Appendix 2: Research Outputs in Northern Ireland Related to Psychological Therapies

(1) Psychological Therapies and Interventions

Campbell, L., Wilson, F.C., McCann, J., Kernahan, G. & Gray Rogers, R. (2007). An experimental single case study of carer facilitated errorless learning following TBI. *Neurorehabilitation*, 22(4), 325-333.

Coulter, S. (advanced access). Systemic Family Therapy for families who have experienced trauma: A Randomised Controlled Trial**.** *British Journal of Social Work.*

Duffy, M; Gillespie, K; Clark, D M (2007) Post-traumatic stress disorder in the context of terrorism and other civil conflict in Northern Ireland: randomised controlled trial; *British Medical Journal* 334:1147

Gillespie, Duffy, Hackmann & Clark (2002) Community based cognitive therapy in the treatment of post-traumatic stress disorder following the Omagh bomb; *Behaviour Research and Therapy*; 40 345-357.

Jones, F., Mandy, A., Partridge, C. (2009) Changing self-efficacy in patients following a first time stroke: preliminary study of a novel self-management intervention. *Clinical Rehabilitation* 23: 522-633

McConkey, Roy, Truesdale-Kennedy, Maria, Crawford, Heather and McGreevy, Elaine (2008) Preschoolers with autism spectrum conditions: The impact of a home-based intervention to promote their communication. *Early Child Development and Care* , 180 .

McCusker, C.G., Doherty, N., Molloy, B., Casey, F., Rooney, N., Mulholland, C., Sands, A., Craig, B. & Stewart, M. (2010) A controlled trial of early interventions to promote maternal adjustment and development in infants born with severe congenital heart disease, *Child: Care and Development 36*: 110-117

McLaughlin, DF, McGowan, IW, Paterson, MC & Miller, PW (2008) Cessation of deliberate self harm following eye movement desensitisation and reprocessing: A case report .*Cases Journal* 2008, **1**:177

Semple, C J., Dunwoody, L, Kernohan, G. & McCaughan, E. (2009) Development and evaluation of a problem-focused psychosocial intervention for patients with head and neck cancer. *Supportive Care in Cancer*, 17 (4), 379-388.

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Appendix 3 – Search terms

PsychInfo

Adults
"multi* interv*" OR "crisis interv*" OR "relapse preventi*" OR "psychological ther*" OR "psychological interv*" OR "psychotherap*" OR "behav* therap*" OR "cognitive therap*" OR "cognitive behav* therap*" OR "psychodynamic therap*" OR "systemic therap*" OR "family therap*" OR "group therap*" OR "humanistic therap*" OR "person cent* therap*" OR "EMDR" OR "interpersonal therap*" OR "interpersonal psychotherap*" OR "reality orientation" OR "reminiscence"
AND
LIMITS: English, systematic review or meta-analysis, human participants, adult participants, not dissertations, published from 2004

Child
"multi* interv*" OR "crisis interv*" OR "relapse preventi*" OR "psychological ther*" OR "psychological interv*" OR "psychotherap*" OR "behav* therap*" OR "cognitive therap*" OR "cognitive behav* therap*" OR "psychodynamic therap*" OR "systemic therap*" OR "family therap*" OR "group therap*" OR "humanistic therap*" OR "person cent* therap*" OR "EMDR" OR "interpersonal therap*" OR "interpersonal psychotherap*" OR "narrative ther*" OR "psychosocial interv*" OR “school based interv*” OR “social skills training” OR “psychoeducation*” OR “play ther*” OR “applied behav* analysis”
AND
LIMITS: English, systematic review or meta-analysis, human participants, child participants, not dissertations, published from 2004

LD
"multi* interv*" OR "crisis interv*" OR "relapse preventi*" OR "psychological ther*" OR "psychological interv*" OR "psychotherap*" OR "behav* therap*" OR "cognitive therap*" OR "cognitive behav* therap*" OR "psychodynamic therap*" OR "systemic therap*" OR "family therap*" OR "group therap*" OR "humanistic therap*" OR "person cent* therap*" OR "EMDR" OR "interpersonal therap*" OR "interpersonal psychotherap*" OR "reality orientation" OR "reminiscence" OR “applied behav* analysis” OR “positive programming” OR “psychoeducation*”
AND
disab* OR retard* OR handicap* OR “mental* retard*” OR “learning disab*” OR “mental* handicap*” OR “intellectual* disab*”
AND
LIMITS: English, systematic review or meta-analysis, human participants, not dissertations, published from 2004

Web of Science

Adults
"multi* interv*" OR "crisis interv*" OR "relapse preventi*" OR "psychological ther*" OR "psychological interv*" OR "psychotherap*" OR "behav* therap*" OR "cognitive therap*" OR "cognitive behav* therap*" OR "psychodynamic therap*" OR "systemic therap*" OR

"family therap*" OR "group therap*" OR "humanistic therap*" OR "person cent* therap*" OR "EMDR" OR "interpersonal therap*" OR "interpersonal psychotherap*" OR "reality orientation" OR "reminiscence"
AND
outcome* OR efficac* OR effective* OR evaluat* OR meta* OR review
AND
“OCD” OR “PTSD” OR “obsessive compulsive” OR anxiety OR anxious OR stress OR panic OR phobia OR bipolar OR mood OR depress* OR schizophren* OR psychosis OR psychotic OR psychoses OR heart OR cardiac OR cancer OR diabet* OR pain OR dementia
AND
“systematic review” OR “meta analysis” OR “meta-analysis” in title
AND
LIMITS: English, review, published from 2004

Child
"multi* interv*" OR "crisis interv*" OR "relapse preventi*" OR "psychological ther*" OR "psychological interv*" OR "psychotherap*" OR "behav* therap*" OR "cognitive therap*" OR "cognitive behav* therap*" OR "psychodynamic therap*" OR "systemic therap*" OR "family therap*" OR "group therap*" OR "humanistic therap*" OR "person cent* therap*" OR "EMDR" OR "interpersonal therap*" OR "interpersonal psychotherap*" OR "narrative ther*" OR "psychosocial interv*" OR “school based interv*” OR “social skills training” OR “psychoeducation*” OR “play ther*” OR “applied behav* analysis”
AND
outcome* OR efficac* OR effective* OR evaluat* OR meta* OR review
AND
OCD OR PTSD OR "obsessive compulsive" OR anxiety OR anxious OR stress OR panic OR phobia OR bipolar OR mood OR depress* OR schizophren* OR psychosis OR psychotic OR psychoses OR "conduct disorder" OR "attention deficit" OR ADHD OR "self harm*" OR autistic OR autism
AND
“systematic review” OR “meta analysis” OR “meta-analysis” in title
AND
LIMITS: English, review, published from 2004

LD
"multi* interv*" OR "crisis interv*" OR "relapse preventi*" OR "psychological ther*" OR "psychological interv*" OR "psychotherap*" OR "behav* therap*" OR "cognitive therap*" OR "cognitive behav* therap*" OR "psychodynamic therap*" OR "systemic therap*" OR "family therap*" OR "group therap*" OR "humanistic therap*" OR "person cent* therap*" OR "EMDR" OR "interpersonal therap*" OR "interpersonal psychotherap*" OR "reality orientation" OR "reminiscence" OR “applied behav* analysis” OR “positive programming” OR “psychoeducation*”
AND
disab* OR retard* OR handicap* OR “mental* retard*” OR “learning disab*” OR “mental* handicap*” OR “intellectual* disab*”
AND
outcome* OR efficac* OR effective* OR evaluat* OR meta* OR review
AND

OCD OR PTSD OR "obsessive compulsive" OR anxiety OR anxious OR stress OR panic OR phobia OR bipolar OR mood OR depress* OR schizophren* OR psychosis OR psychotic OR psychoses OR "challenging behav*" OR "self harm*" OR dementia
AND
LIMITS: English, review, published from 2004

Medline

Adults
"mult$ interv$" OR "crisis interv$" OR "relapse preventi$" OR "psychological ther$" OR "psychological interv$" OR "psychotherap$" OR "behav$ therap$" OR "cognitive therap$" OR "cognitive behav$ therap$" OR "psychodynamic therap$" OR "systemic therap$" OR "family therap$" OR "group therap$" OR "humanistic therap$" OR "person cent$ therap$" OR "EMDR" OR "interpersonal therap$" OR "interpersonal psychotherapy$" OR "reality orientation" OR "reminiscence"
Abstract, title, keyword
AND
OCD OR PTSD OR “obsessive compulsive” OR anxiety OR anxious OR stress OR panic OR phobia OR bipolar OR mood OR depress$ OR schizophren$ OR psychosis OR psychotic OR psychoses OR heart OR cardiac OR cancer OR diabet$ OR pain OR dementia
Abstract, title, keyword
AND
LIMITS: English, systematic review or meta-analysis, human participants, adult participants, published from 2004

Child
"mult$ interv$" OR "crisis interv$" OR "relapse preventi$" OR "psychological ther$" OR "psychological interv$" OR "psychotherap$" OR "behav$ therap$" OR "cognitive therap$" OR "cognitive behav$ therap$" OR "psychodynamic therap$" OR "systemic therap$" OR "family therap$" OR "group therap$" OR "humanistic therap$" OR "person cent$ therap$" OR "EMDR" OR "interpersonal therap$" OR "interpersonal psychotherapy$" OR "narrative ther$" OR "psychosocial interv$" OR “school based interv$” OR “social skills training” OR “psychoeducation$” OR “play ther$” OR “applied behav$ analysis”
Abstract, title, keyword
AND
OCD OR PTSD OR "obsessive compulsive" OR anxiety OR anxious OR stress OR panic OR phobia OR bipolar OR mood OR depress$ OR schizophren$ OR psychosis OR psychotic OR psychoses OR "conduct disorder" OR "attention deficit" OR ADHD OR "self harm$" OR autistic OR autism
Abstract, title, keyword
AND
LIMITS: English, systematic review or meta-analysis, human participants, child participants, published from 2004

LD
"mult$ interv$" OR "crisis interv$" OR "relapse preventi$" OR "psychological ther$" OR "psychological interv$" OR "psychotherap$" OR "behav$ therap$" OR "cognitive therap$" OR "cognitive behav$ therap$" OR "psychodynamic therap$" OR "systemic therap$" OR "family therap$" OR "group therap$" OR "humanistic therap$" OR "person cent$ therap$"

OR "EMDR" OR "interpersonal therap$" OR "interpersonal psychotherapy$" OR "reality orientation" OR "reminiscence" OR “applied behav$ analysis” OR “positive programming” OR “psychoeducation$”
Abstract, title, keyword
AND
Disab$ OR retard$ OR handicap$ OR “mental$ retard$” OR “learning disab$” OR “mental$ handicap$” OR “intellectual$ disab$”
Abstract, title, keyword
AND
OCD OR PTSD OR "obsessive compulsive" OR anxiety OR anxious OR stress OR panic OR phobia OR bipolar OR mood OR depress$ OR schizophren$ OR psychosis OR psychotic OR psychoses OR "challenging behav$" OR "self harm$" OR dementia
Abstract, title, keyword
AND
LIMITS: English, systematic review or meta-analysis, human participants, published from 2004

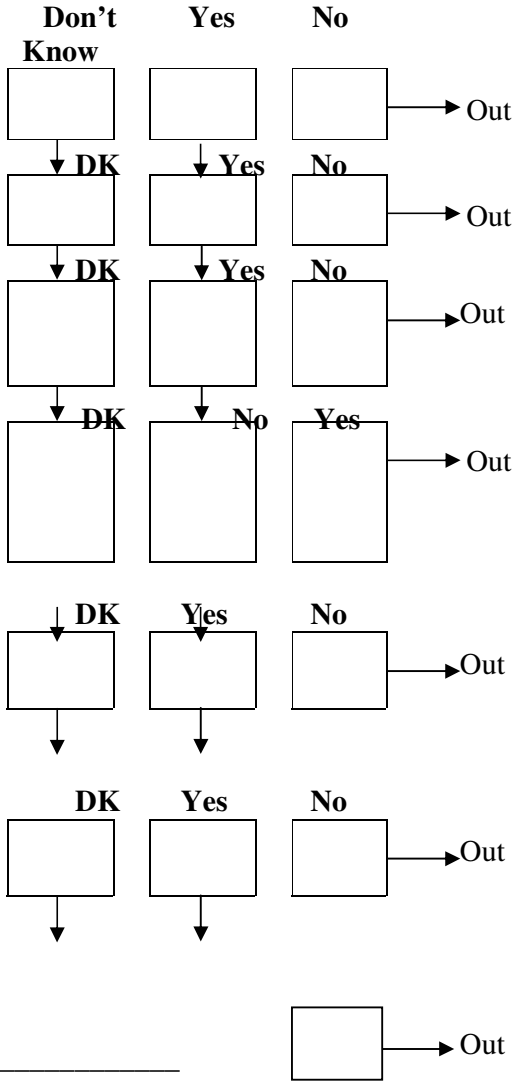
Appendix 4

ELIGIBILITY CRITERIA FORM FOR TITLES/ABSTRACTS

Basic Data

1. Author(s) Year:
2. Title
3. Database(s)
4. Reference No: Reviewer:

Criteria



1. Is the item available in English?
2. Is the item a review of research (i.e. not a theoretical review)?
3. Does the item include a focus on psychological therapy (i.e. from one of the 4 schools of psychotherapy)?
4. Does the item focus on anxiety disorders, mood disorders, psychosis and personality disorders (including severe and enduring mental illness (SMI)), heart disease, cancer or diabetes?
5. Does the item focus on adults?
6. Does the review focus on studies of effectiveness?
7. Other reason for exclusion: _____

Final Decision: Include / Exclude

GUIDANCE NOTES FOR ELIGIBILITY ASSESSMENT FORM

1. The 4 Schools of Psychotherapy are defined as:

   a) behaviour therapy
   b) cognitive therapy, including rational emotive therapy, cognitive behaviour therapy
   c) psychodynamic approaches
   d) humanistic therapy, including gestalt therapy, existential therapies, narrative therapy, primal therapy, trans-personal therapy, client-centred therapy

   The labels family therapy or systemic therapy might also be used.

2. Anxiety disorders include: acute stress disorder, generalised anxiety disorder, obsessive compulsive disorder, panic disorder, phobias, posttraumatic stress disorder

3. Mood disorders include: bipolar disorder, major depression, dysthymia, cyclothymia

4. Psychosis and personality disorders includes: delusional disorder, schizoaffective disorder, paranoia, schizophrenia, borderline personality disorder, other personality disorders

Appendix 5

Eligibility criteria for Research Articles – First Screening

	No. of Hits	Review of research	Focus on psycho-therapy	Focus on main disorders	Correct age group	Study effective-ness	Not availabl e
Adult Medline	380	112	86	37	8	5	32
Adult Psychinfo	89	4	13	11	11	8	7
Adult Web of Science	271	0	91	40	28	8	11
Child Medline	340	85	67	56	19	12	16
Child Psychinfo	78	3	8	23	5	2	0
Child Web of Science	221	0	45	63	85	0	4

Appendix 6 – AMSTAR Rating

AMSTAR

1. Was an 'a priori' design provided? The research question and inclusion criteria should be established before the conduct of the review.	□ Yes □ No □ Can't answer □ Not applicable
2. Was there duplicate study selection and data extraction? There should be at least two independent data extractors and a consensus procedure for disagreements should be in place.	□ Yes □ No □ Can't answer □ Not applicable
3. Was a comprehensive literature search performed? At least two electronic sources should be searched. The report must include years and databases used (e.g. Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.	□ Yes □ No □ Can't answer □ Not applicable
4. Was the status of publication (i.e. grey literature) used as an inclusion criterion? The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports (from the systematic review), based on their publication status, language etc.	□ Yes □ No □ Can't answer □ Not applicable
5. Was a list of studies (included and excluded) provided? A list of included and excluded studies should be provided.	□ Yes □ No □ Can't answer □ Not applicable
6. Were the characteristics of the included studies provided? In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed e.g. age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported.	□ Yes □ No □ Can't answer □ Not applicable

7. Was the scientific quality of the included studies assessed and documented? 'A priori' methods of assessment should be provided (e.g., for effectiveness studies if the author(s) chose to include only randomized, double-blind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.	□ Yes □ No □ Can't answer □ Not applicable
8. Was the scientific quality of the included studies used appropriately in formulating conclusions? The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.	□ Yes □ No □ Can't answer □ Not applicable
9. Were the methods used to combine the findings of studies appropriate? For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e. Chi-squared test for homogeneity, I^2). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e. is it sensible to combine?).	□ Yes □ No □ Can't answer □ Not applicable
10. Was the likelihood of publication bias assessed? An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression test).	□ Yes □ No □ Can't answer □ Not applicable
11. Was the conflict of interest stated? Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.	□ Yes □ No □ Can't answer □ Not applicable

Appendix 7 NICE Guidelines for Depression

Computerised Cognitive Behaviour Therapy

Computerised Cognitive Behaviour Therapy (CCBT) is a form of CBT which is delivered using a computer either via a CD-ROM, DVD or the internet.

NICE Guidelines – CCBT – self report symptom measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Versus Wait list control	1	202	-0.27	-0.54 to 0.01	Low
Versus TAU Control	1	274	-0.62	-0.91 to -0.33	Low
Versus Discussion Group	2	477	-0.61	-1.22 to 0	High
Versus Psycho-education Control	1	276	-0.03	-0.27 to 0.2	Low
Versus Group CBT Control	1	201	0.06	-0.22 to 0.34	Low

Conclusions

NICE Guidelines identified 7 RCTs providing data on 1,676 participants. When CCBT was compared with a non-active control group a significant small-medium effect size was noted at end of treatment (SMD -0.40; 95% CI -0.58, -0.22). This improvement was not maintained at 12 months follow-up (SMD = -0.02; 95% CI -0.22, 0.17). When CCBT was compared with an active control group (e.g. Group CBT) no significant difference was observed at the end of treatment.

Guided Self-Help

Guided self-help is a self-administered intervention which uses a range of books or other self-help manuals which are derived from an evidence-based intervention, most frequently Cognitive Behaviour Therapy.

NICE Guidelines – Guided Self-help – self report symptom measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Guided Self-help with support VS	1	30	-0.28	-1.08 to 0.53	Low

Wait list control					
Vs TAU	1	59	-0.27	-0.88 to 0.34	Low
Guided self-help minimal support VS Wait list	6	227	-0.98	-1.50 to -0.47	Moderate
VS TAU	2	497	-0.49	-0.77 to -0.21	Moderate
Psychoeducation VS Wait list	1	21	-0.67	-1.56 to 0.21	Moderate
VS TAU	1	319	-0.45	-0.83 to -0.07	Moderate
Support by post VS wait list	3	368	-0.57	-1.02 to -0.12	Moderate

Conclusion
16 studies were identified – overall analysis indicates that Guided self-help has a beneficial effect in people with both sub-threshold depression and mild depression compared to Wait List Controls (5 studies) SMD = -0.57; 95% CI: -1.50, -0.47). At 6 month follow-up (2 studies) benefits were maintained SMD = -0.57, 95%; CI: -1.02. -0.12.

Cognitive Behaviour Therapy

Cognitive Behaviour Therapy (CBT) was formalised into a treatment in the late 1970s. It is a discrete, time-limited structured psychological intervention derived from the cognitive behavioural model of affective disorders. Interventions can be carried out in an individual or group setting

NICE Guidelines – Cognitive Behaviour Therapy – self-report symptom measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
VS Antidepressants	13	1480	-0.06	-0.24 to 0.12	High
VS Wait list controls	4	-	-0.89	-1.45 to -0.33	-
VS Placebo & clinical management	2	193	-0.15	-0.51 to 0.21	Moderate
VS Rational Emotive Therapy	1	113	0	-0.37 to 0.37	Low
VS Behavioural Activation	2	108	0.34	-0.26 to 0.95	Moderate

VS IPT	3	405	0.21	0.01 to 0.41	Moderate
VS Short-term psychodynamic	1	66	-0.35	-1.30 to 0.61	High
CBT Primary Care VS GP Care	3	208	0.01	-0.83 to 0.85	High
CBT + antidepressants VS Antidepressants	5	710	-0.17	-0.44 to 0.10	High
Group CBT VS Other group therapy	3	158	-0.17	-0.61to 0.26	Moderate
Group CBT VS Wait list	4	369	-0.60	-0.84 to -0.35	Low

Behavioural Activation

Behavioural activation is a discrete, time-limited structured psychological intervention which encourages the patient to develop more rewarding and task focused behaviours and eliminate patterns of negative reinforcement

NICE Guidelines – Behavioural Activation – self report symptom measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Vs CBT	3	-	0.34	-0.26 to 0.95	-
Vs Placebo	1	96	0.07	-0.61 to 0.75	-
Vs Non-directive support	1	25	-0.69	-1.52 to 0.14	-
Vs Antidepressants	1	159	0.15	-0.47 to 0.78	-

Problem Solving Therapy

Problem Solving Therapy is a discrete, time-limited intervention which focuses upon learning how to cope with specific problem areas

NICE Guidelines – Problem Solving Therapy – self-report measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality

Vs Placebo	1	60	-0.69	-1.24 to -0.14	Moderate
Vs Antidepressants	2	177	-0.11	-0.46 to 0.25	Moderate
Problem Solving + antidepressants Vs Antidep.	1	71	-0.24	-0.73 to 0.24	Low
Problem Solving (GP) Vs Problem Solving (nurse)	1	80	-0.07	-0.54 to 0.40	Low

Couples Therapy

Couples therapy is a time-limited psychological intervention derived from a model of the interactional processes in relationships

NICE Guidelines – Couples therapy – Self report symptom measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Vs Wait list	2	54	-1.35	-1.95 to 0.75	High
Vs CBT	2	67	-0.10	-0.58 to 0.38	Moderate
Vs IPT	1	40	-0.06	-0.68 to 0.56	Low

Interpersonal Therapy (IPT)

Interpersonal therapy is a time-limited intervention which facilitates understanding recent events in interpersonal terms and explores alternative ways of handling interpersonal situations.

NICE Guidelines -

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Vs Placebo	1	123	-0.28	-0.64 to 0.07	Low
Vs usual GP Care	2	232	-0.69	-1.22 to -0.16	Moderate
IPT + antidep. Vs antidep.	4	302	-0.06	-0.41 to 0.28	Low

Counselling

Counselling 'is a systematic process which gives individuals an opportunity to explore, discover and clarify ways of living more resourcefully with a greater sense of well-being' (BACP)

NICE Guidelines – Counselling – self report symptom measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Vs Antidepressants	1	83	0.04	-0.39 to 0.47	Low
Vs CBT	2	215	-0.07	-0.33 to 0.20	Low

Short-term Psychodynamic Psychotherapy (STPP)

Short-term dynamic psychotherapy is derived from psychodynamic/psychoanalytic models where the patient explores feelings and conscious and unconscious conflicts originating in the past. Therapy focuses upon interpreting and working through conflicts.

NICE Guidelines – Short-term Psychodynamic Psychotherapy – clinician rated scores of symptomatology

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Vs antidepressants	1	103	0.43	0.03 to 0.82	Moderate
STPP Vs STPP + antidepressants	1	208	0.04	-0.23 to 0.32	Low
Vs Wait list	1	57	-1.09	-2.04 to -0.13	Moderate
Vs Supportive therapy	1	20	-0.97	-1.91 to -0.03	Moderate
STPP + Antidep. Vs supportive therapy + antidep	1	74	-0.80	-4.06 to 2.46	Low
STPP + Antidep. Vs antidepressants	1	128	0.16	-2.44 to 2.76	Very Low

Rational Emotive Behaviour Therapy

Rational Emotive Behaviour Therapy is a form of CBT. It is a present-focused, short-term therapy which uncovers and addresses the relationships between thoughts, feelings and behaviours.

NICE Guidelines - Rational Emotive Therapy – self-report symptom measure

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Vs antidepressants	1	180	-0.07	-0.44 to 0.29	-

Interventions for sub-threshold depressive symptoms/ dysthymia

NICE Guidelines - Psychological Interventions – clinician rated measure of symptomatology

Focus	No. Of trials	Patients	SMD	95% CI	Study Quality
Psychological intervention Vs antidepressants	3	319	0.29	0.13 to -0.45	High
Psych. intervention + antidep. Vs antidepressants	2	92	0.09	-0.02 to 0.4	Low
Psych. Interv. + antidep Vs psych. interventions	1	49	-0.17	-0.37 to 0.003	Moderate
STPP verbal therapy Vs STPP Art Therapy	1	43	-0.11	-0.74 to 0.52	Low

Appendix 8

NICE Guidelines – Treatment Comparisons for Generalised Anxiety Disorder

Focus	No of Trials	Patients	SMD	95% CI:	Study Quality
Bibliotherapy VS non-active Control	4	142	- 0.76	- 1.12 to -0.40	Moderate
Bibliotherapy VS Waiting List	1	35	- 1.06	- 1.77 to -0.35	High
Computer therapy VS Waiting List	1	100	- 0.61	- 1.01 to -0.21	High
Guided Computer Therapy VS Waiting List	1	45	- 1.22	- 1.86 to 0.57	High
Psycho-educational Group (CBT) VS Waiting List	1	33	- 0.70	- 1.45 to 0.04	Low
CBT VS Waiting List	10	398	- 0.63	- 0.33 to -0.42	High
CBT VS applied Relaxation	8	303	- 0.01	- 0.22 to 0.23	Moderate
CBT VS Short-term Psychodynamic2	2	121	- 0.45	- 0.81 to -0.08	Moderate
CBT VS Non-directive Therapy	1	37	- 0.69	- 1.35 to -0.02	Moderate
CBT VS Other Active Comparisons	1	51	- 0.59	- 1.19 to 0.01	Low
Applied Relaxation VS Waiting List	3	121	- 0.49	- 0.86 to -0.13	High
Applied Relaxation VS Non-directive Therapy	1	36	- 0.48	- 1.14 to 0.19	Low
Psychodynamic Therapy VS Active control	1	64	0.18	- 0.31 to 0.67	Low
Psychodynamic Therapy VS Non-directive therapy	1	31	0.47	0.24 to 1.19	Moderate
Affect-focused body Psychotherapy VS TAU	1	61	- 0.04	0.55 to 0.46	-
Integrated Relationship Therapy VS Waiting List	1	35	- 1.42	- 2.21 to -0.63	-
Med. & Anx. Man. Training VS Active control & Anxiety Management Training	1	60	- 0.06	- 0.76 to 0.88	-
Medication & Non-directive Therapy VS Active Control & Non-directive	1	60	- 0.07	- 0.84 to 0.97	-
CBT and IPT VS Waiting List	1	24	- 2.89	-4.10 to –1.69	-
CBT VS CBT and IPT	1	24	- 0.07	- 0.87 to 0.73	

Appendix 9

Roth and Fonagy Findings for Depression

Author	Patient Characteristics	Intervention	Outcomes
Elkin (1994) (US study)	239 patients moderate to severe depression	Random allocation (1) Cognitive Behaviour Therapy (CBT) (2) Interpersonal Psychology (IPT) (3) Medication plus clinical management (Med) (4) Placebo plus clinical management (Plac)	Drop-out rates (1) CBT = 32% (2) IPT = 23% (3) MED = 33% (4) Plac = 40% <u>Post Therapy Symptoms</u> All conditions significant improvement pre to post treatment No differences observed between interventions
Ogles et al (1995)	Reanalysis of above data		Moderate depression group – no significant difference between groups Severe depression group – Medication (3) more effective than placebo (4) - IPT 920 more effective than placebo (4)
Elkin (1995)			Medication (3) and IPT (2) equally effective
Shea (1992)	Follow-up patients above at 18 months		Recovery with no relapse (1) CBT = 24% (2) IPT = 23% (3) Medication = 16% (4) Placebo = 16%
Evans (1992) USA study	(64 patients completed)	Random Allocation (1) CBT (2) Medication (3) Combined CBT and Medication (4) Acute medication	Post Treatment - All treatments showed equal efficiency - non-significant trend better results for combined (3) 2 year follow-up Relapse rates (N=44pts) (2) Medication = 50% (1) CBT = 18% (3) Combined = 18%
DeRubeis and Amsterdam (2002) USA Study	240 patients moderate to severe depression (50% chronic depression 75% recurrent depression)	Asymmetric assignment (1) Medication (N = 120) (2) Placebo (N = 60) (3) CBT (N = 60)	Response rate at 8 weeks Medication = 50% CBT = 43% Placebo = 25% Response rate at 16 weeks

	104 patients - treatment responders - Medication responders (N = 69) - CBT responders (N = 34)		Medication = 58% CBT = 58% 12 Month follow-up - Relapse rates CBT = 31% Placebo = 76% Medication = 47%
Author	**Patient Characteristics**	**Intervention**	**Outcomes**
Shapiro (1994) UK Study	120 patients - stratified info - low - moderate - high levels of depression	Random allocation (1) CBT (2) Psychodynamic or IPT treatment X 8 sessions X 16 sessions	- both therapies equally effective - patients mild/moderate depression equal outcome for 8 or 16 sessions - Patients severe depression significantly better outcome 16 sessions
Shapiro (1994)	103 completed patients		1 year follow-up - 11% relapse / recurrence - 32% partial relapse - no overall difference in outcome between therapies - non-significant trend 16 sessions CBT better gains
Frank 1989 US Study	230 patients with history recurrent depression	- all received medication and 1 patient recovery - at assigned 3 year maintenance treatment (1) clinical management (CM) plus medication (2) CM plus Placebo (3) 1 patient plus medication (4) 1 patient plus placebo (5) 1 patient	Over 3 year period recurrence rate Medication = 22.6% Placebo = 78.2% 1 patient (with or without medication) 44.2% - high quality 1 patient relapse at 2 years - low quality 1 patient relapse at 5 months

Author	**Meta-analysis**	**Outcomes**
Jarrett and Maguire (1991)	48 trials 22 – CT 13 – BT 4 – IPT	Overall efficiency all therapies = 50% - behaviour therapy = 55% - cognitive therapy = 47%

	8 – Brief psychodynamic 1 – marital therapy	- psychodynamic therapy = 35% - patient (1 study) = 52%
Gloaguen (1998)	48 controlled trials	Cognitive therapy US waiting list – effect size = 0.82 US antidepressants – effect size = 0.38 US other therapies – effect size = 0.24 US behaviour therapy – effect Size = 0.05
McDermut (2001)	48 trial	Group therapy Us no treatment – effect Size = 1.03 Group therapy US individual therapy Effect size = 0.15
Wester & Morrison (2001)	12 studies	Psychotherapy – effect size - pre to post therapy = 2.23 - Medium size at termination = 0.3
Churchill (2001)	50 trials	Proportion of patients recovered at post therapy compared to wait-list controls - all therapies – odds ration = 3.01 - CBT – or =3.42 - IPT – or = 3.52 - supportive therapy – or = 2.71
Thase (1997)	6 studies - 243 patients (CBT or IPT) - 352 patients (IPT and medication)	Mild depression – equivalent outcomes with motabilities - severe depression – recovery rates - combination = 43% - psychotherapy alone = 25% - recurrent depression – recover rates - combination = 60% - psychotherapy alone = 19%

Appendix 10

Roth and Fonagy Findings - Generalised Anxiety Disorder

Author	Focus	Study	Outcome
Chambless and Gillis (1993)	CBT VS Control condition (e.g. waiting list placebo etc)	7 trials	- Pre-post treatment effect size = 1.69 - Follow-up effect size = 1.95
Gould et al (1997)	CBT VS pharmacology	22 trials pharmacology 13 trials CBT	Stat equivalent effect sizes (0.7 and 0.6)
Borkovec and Ruscio (2001)	CBT VS Behavioural or Cognitive Interventions CBT VS placebo & non-specific therapies	2 trials including 13 studies mixed GAD and Panic Disorder As above	- effect size = 0.26 at post therapy - effect size = 0.54 at follow-up - effect size = 0.71 at at post therapy - effect size = 0.3 at follow-up
Durham and Allan (1993)	Cognitive Therapy, Behavioural Therapy, Relaxation, Biofeedback Nondirective therapy As above	2 trials including 13 studies mixed GAD and panic disorder 5 studies	- 54% reduction for somatic symptoms across all studies - 25% reduction in tendency to worry - 57% of patients in cognitive therapy and 22% behaviour therapy patients in remission
Fisher and Durham (1999)	CBT, Behaviour Therapy, Psychodynamic therapy, applied relaxation, non-directive therapy	6 trials	Across all therapies post therapy 3% worse 45% no change 20% improved 32% recovered <u>6 Month follow-up</u> 2% worse 36% no change 24% improved 38% recovered - individual applied relaxation (60%) and CBT (51%) best outcomes - Individual non-directive groups (38%) group CBT (33%) and group behaviour therapy (31) had moderate outcomes
Butler et al (1991)	CBT & Behaviour Therapy VS waiting list	1 trial 57 patients	Clinically significant change – post therapy 32% CBT 16% behaviour therapy Clinically significant change

			– 6 month follow-up 42% CBT 5% behaviour therapy
Author	**Focus**	**Study**	**Outcome**
Durham and Turvey (1987)	CBT VS Behaviour Therapy	51 patients 16 sessions CBT or Behavioural Therapy	- Post treatment gains similar in both conditions 25% no change 20% moderate gains 55% significant gains - 6 month follow-up 62% CBT patient rated greatly improved - 30% behaviour therapy patients rated greatly improved
Barlow et al (1992)	CBT VS applied relaxation VS combined therapy	65 patient randomized to treatment	All 3 conditions significant and equivalent gains - sustained at 2 year follow-up
Borkovec and Costello (1993)	CBT, applied relaxation, non-directive counselling	55 patients 14 sessions	Post therapy - applied relaxation and CBT improved equivalently - significant more than non-directive counselling <u>12 month follow-up</u> High response to treatment 58% CBT 33% applied relaxation 22% non-directive counselling
Ost and Breitholtz (2000)	Cognitive therapy VS applied relaxation	36 patients 12 weeks CT or applied relaxation	- post treatments and 1 year follow-up = Equivalent out cares Applied relaxation 53% and 67% Cognitive therapy 62% and 56%
Durham et al (1994, 1999)	CBT VS analytically based psychotherapy VS Anxiety Management Training (AMT)	- 99 patients - 80% had co-morbid Axis 1 disorder - 46% Co-morbid Axis 2 disorder	- CBT patients – significant and consistent gains with improvements maintained at 6 months and 12 months follow-up - Analytic therapy and AMT patients – some significant gains but not maintained at follow-up - 8 to 10 year follow-up of 61 patients – 50% of these in recovery – maintained their gains
White et al (1992) White (1978)	Cognitive therapy, Behaviour Therapy, CBT, waiting list, placebo control	109 patients allocation to 5 groups 6 x 2 hour sessions	At post therapy, 6 month and 2 year follow-up - no differential impact of therapies

Author	**Focus**	**Study**	**Outcome**
Lindsey et al (1987)	CBT VS medication, AMT & wait list control	40 patients	- medication – rapid response but effect diminished - greatest improvement for CBT
Power et al (1989)	CBT & Relaxation Training VS Medication & Placebo	101 patients Primary Care 10 week treatment	Recovery on HAS 83 - 86% CBT 68% medication 37% placebo <u>6 month follow-up</u> 70% CBT 40% medication 21% placebo
Bard et al (2002)	Medication or placebo plus AMT or non-directive therapy	60 patients randomized	<u>Post-therapy</u> - No differences between groups

Conclusion: CBT and applied relaxation slow. Greatest efficacy with 50 - 65% of patients showing clinically significant improvements with reasonable maintenance of gains at follow-up.

Psychodynamic therapy, behavioural methods and non-directive counselling show markedly lower levels of efficiency.

High levels of pre-existing medication (approximately 50% of patients) and extensive co-morbidity complicate research conclusions

Appendix 11

Clinical Definition of Learning Disability

Organisation	Terminology	Definition/ criteria
ICD-1053 The ICD-10 Classification of Mental and Behavioural Disorders54	Mental Retardation	*… a condition of arrested or incomplete development of the mind, which is especially characterised by impairment of skills manifested during the developmental period, which contribute to the overall level of intelligence, i.e. cognitive, language, motor and social abilities. … Adaptive behaviour is always impaired …*
AAMR The American Association on Mental Retardation (1992)	Mental Retardation	*… substantial limitations in present functioning. It is characterised by significantly sub average intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adaptive skill areas: communication, selfcare, home-living, social skills, community use, selfdirection, health and safety, functional academics, leisure and work. Mental retardation manifests before age 18.*
DSM-IV Diagnostic and Statistical Manual of Mental Disorders55	Mental Retardation	*a) Significantly sub-average intellectual functioning: an IQ of approximately 70 or below on an individually administered IQ test. (b) Concurrent deficits or impairments in present*

		adaptive functioning (i.e. the person's effectiveness in meeting the standards expected for his or her age by his or her cultural group) in at least two of the following areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety. *(c) The onset is before age 18 years.*
Department of Health (1998)56	Learning Disability	*... usually described as a significant impairment of intelligence and social functioning acquired before adulthood.*

Appendix 12

Glossary of Terms
(adapted from NICE website)

Absolute risk

The likelihood of an event or outcome occurring (for example, an adverse reaction to the drug being tested) among the group being studied. Studies that compare two or more groups of people may report results in terms of the *absolute risk reduction*.

Adverse event

An unwanted outcome related to a treatment, for example a side effect from a drug, or a dangerous clot forming after surgery.

Analysis

The process of looking for patterns in information to identify cause and effect or answer specific questions, such as whether a treatment works and what the risks are.

There are two types of analysis. Quantitative analysis looks for patterns in the form of numbers, such as most frequent choice of treatment option or average rating of pain during treatment. Qualitative analysis looks for patterns of meaning, feeling or beliefs. It can lead to a finding such as 'most people who support paying more for end of life therapy also believe society should give more to those with greater need.'

Applicability

How well the results of a study or NICE evidence review can answer a *clinical question* or be applied to the *population* being considered.

Best available evidence

The strongest, best-quality research evidence available on the topic being investigated.

Bias

Influences on a study that can make the results look better or worse than they really are. (Bias can even make it look as if a treatment works when it does not.) Bias can occur by chance, deliberately or as a result of *systematic errors* in the design and execution of a study. It can also occur at different stages in the research *process*, for example, during the collection, *analysis*, interpretation, publication or review of research *data*. For examples see *selection bias*, *performance bias*, *information bias*, *confounding factor*, and *publication bias*.

Blinding or masking

A way to prevent researchers, doctors and patients in a *clinical trial* from knowing which study group each patient is in so they cannot influence the results. The best way to do this is by sorting patients into study groups randomly. The purpose of 'blinding' or 'masking' is to protect against *bias*.

A single-blinded study is one in which patients do not know which study group they are in (for example whether they are taking the experimental drug or a

placebo). A double-blinded study is one in which neither patients nor the researchers/doctors know which study group the patients are in. A triple blind study is one in which neither the patients, *clinicians* or the people carrying out the statistical *analysis* know which treatment patients received.

Case-control study

A study to find out the cause(s) of a disease or condition. This is done by comparing a group of patients who have the disease or condition (cases) with a group of people who do not have it (*controls*) but who are otherwise as similar as possible (in characteristics thought to be unrelated to the causes of the disease or condition). This means the researcher can look for aspects of their lives that differ to see if they may cause the condition.

For example, a group of people with lung cancer might be compared with a group of people the same age that do not have lung cancer. The researcher could compare how long both groups had been exposed to tobacco smoke. Such studies are *retrospective* because they look back in time from the outcome to the possible causes of a disease or condition.

Clinical effectiveness

How well a specific test or treatment works when used in the 'real world' (for example, when used by a doctor with a patient at home), rather than in a carefully *controlled clinical trial*. Trials that assess clinical effectiveness are sometimes called management trials.

Clinical effectiveness is not the same as *efficacy*.

Clinical governance

All NHS organisations have a statutory duty to continually monitor and improve clinical care. This *process*, known as 'clinical governance', ensures high standards of care, safeguards patients against poor performance and reduces variation in services.

Clinical impact

The effect that something is likely to have on the treatment of a particular group of people - or on the results of treating that group.

Clinical importance or significance

A benefit from treatment that relates to an important *outcome* such as length of life, and is large enough to be important to patients and health professionals. As an example, it might include a general reduction in symptoms, less pain or lower blood pressure.

Effects identified as **statistically** significant are not always **clinically** significant, because the effect is small or the outcome is not important. For example, if a treatment improves blood flow but there is no evidence that this leads to an important clinical outcome, such as lower risk of blood clots or heart attack.

Cochrane Collaboration

An international organisation that finds, appraises and reviews *randomised controlled trials*. See also *Cochrane Library*.

Comorbidity

A disease or condition that someone has in addition to the health problem being studied or treated.

Confidence interval (CI)

There is always some uncertainty in research. This is because a small group of patients is studied to predict the effects of a treatment on the wider *population*. The confidence interval is a way of expressing how certain we are about the findings from a study, using statistics. It gives a range of results that is likely to include the 'true' value for the population.

The CI is usually stated as '95% CI', which means that the range of values has a 95 in a 100 chance of including the 'true' value. For example, a study may state that 'based on our *sample* findings, we are 95% certain that the 'true' population blood pressure is not higher than 150 and not lower than 110'. In such a case the 95% CI would be 110 to 150.

A wide confidence interval indicates a lack of certainty about the true effect of the test or treatment - often because a small group of patients has been studied. A narrow confidence interval indicates a more precise estimate (for example, if a large number of patients have been studied).

Contraindication

A factor (such as high blood pressure or use of another medicine at the same time) that increases the risk of a side effect from a particular treatment. Usually the treatment will not be recommended for people with such a contraindication.

Control

A standard or measure for avoiding *bias* from *confounders* in an experiment. In *clinical trials*, the *control* may be a suitable known treatment, test, *risk factor* etc. In a *case-control study*, the controls are usually the people who do not have the condition (*control group*).

Control group

A group of people in a study who do not receive the treatment or test being studied. Instead, they may receive the standard treatment (sometimes called 'usual care') or a dummy treatment (*placebo*). The results for the *control group* are compared with those for a group receiving the treatment being tested. The aim is to check for any differences.

Ideally, the people in the control group should be as similar as possible to those in the treatment group, to make it as easy as possible to detect any effects due to the treatment.

Controlled clinical trial (CCT)

A study testing a specific treatment by using two (or more) groups of patients. The experimental group receives the treatment being tested. The comparison (or *control*) group receives an alternative treatment, a dummy treatment (*placebo*) or no treatment. The two groups are compared to see how effective the *experimental treatment* was.

If participants are randomly allocated to treatment and comparison groups, this is called a *randomised controlled trial*.

Cost effectiveness

Value for money. A test or treatment is said to be 'cost-effective' if it leads to better health than would otherwise be achieved by using the resources in other ways.

Effect size

A measure that shows the magnitude of the *outcome* in one group compared with that in a *control* group.

For example, if the *absolute risk reduction* is shown to be 5% and it is the outcome of interest, the effect size is 5%.

The effect size is usually tested, using statistics, to find out how likely it is that the effect is a result of the treatment and has not just happened by chance (that is, to see if it is *statistically significant*).

Effectiveness

How beneficial a test or treatment is under **usual or everyday conditions**, compared with doing nothing or opting for another type of care.

Efficacy

How beneficial a test, treatment or public health *intervention* is under **ideal conditions** (for example, in a laboratory), compared with doing nothing or opting for another type of care.

Epidemiology

The study of the causes, distribution, control and prevention of disease. Epidemiologists collect and examine medical *data* and spot health trends to establish which diseases are on the increase and where, which treatments and other activities work and which do not. (This includes activities to prevent disease and to improve health and wellbeing.) In other words, they consider the possible *risk factors* for a whole *population* or area, not just for individual patients.

Evidence-based

'Evidence-based' decisions or recommendations are based on research findings that have been systematically *appraised* - that is, the best available evidence.

Evidence-based clinical practice

Decisions about patient care based on the best research evidence available, rather than on personal opinions or common practice (which may not always be *evidence-based*).

Experimental study

A study in which the people taking part are sorted into two or more groups. At least one will be a *control* group. All groups are then followed up under carefully controlled conditions to investigate whether or not a test or treatment affects the course or outcome of a condition or disease. A *controlled clinical trial* and *randomised controlled trial* are examples of experimental studies. *Experimental studies* (rather than *observational studies*) are the best choice for medical studies because they use *control* groups and *minimise bias*. See *non-experimental study* and *quasi-experimental study*.

External validity

The degree to which the results of a study hold true in non-study situations, for example in routine NHS practice. May also be referred to as the *generalisability* of study results to non-*study populations*. For example, the external validity of the study that took place in Spain may be questioned if the population the results were applied to was people in Australia. See also *validity*.

Forest plot

A graphical display to compare the degree of similarity or *heterogeneity* between studies.

Frequency

The number of times an event occurs during a specified period of time.

Funnel plot

A visual way of showing how the results of several studies of the same treatment vary. Usually the effect of treatment in each study is plotted in a graph against the number of people involved. Ideally, the points fall into an inverted funnel shape. If they do not, *publication bias* or other problems are likely.

Generalisability

The extent to which the results of a study hold true for groups that did not participate in the research. See also *external validity*.

Gold standard

A method, procedure or measurement that is widely accepted as being the best available to test for or treat a disease.

Gray/grey literature

Reports that are unpublished or have limited distribution and are not included in bibliographic retrieval systems. Examples include conference proceedings, academic reports, newsletters and industry and technical reports.

Heterogeneity

The term is used in *meta-analyses* and *systematic reviews* to describe when the results of a test or treatment (or estimates of its effect) differ significantly in different studies. Such differences may occur as a result of differences in the *populations* studied, the outcome measures used or because of different definitions of the *variables* involved. It is the opposite of *homogeneity*.

Hierarchy of evidence

Study types organised in order of priority, based on the *reliability* (or lack of potential *bias*) of the conclusions that can be drawn from each type. See also *Levels of evidence*.

Homogeneity

A term used in *meta-analyses* and *systematic reviews* to indicate that the results of studies are similar; the opposite of *heterogeneity*.
Study results are also regarded as homogeneous if any differences could have occurred by chance. See also *consistency*.

Incidence

The number of new cases of a disease divided by the total *population* at risk during a certain period. It is often expressed as numbers per million. See also *prevalence*.

Intention-to-treat analysis

An assessment of the people taking part in a *clinical trial*, based on the group they were initially (and randomly) allocated to. This is regardless of whether or not they dropped out, fully complied with the treatment or switched to an alternative treatment. *Intention-to-treat analyses* are often used to assess *clinical effectiveness* because they mirror actual practice: that is, not everyone complies with treatment and the treatment people receive may be changed according to how they respond to it.

Internal validity

A measure of how well a research study has been designed. That is, the extent to which the cause-and-effect relationships in a study are true for the people and conditions of the study. See also *validity*.

Intervention

In medical terms this could be a drug treatment, surgical procedure, diagnostic or psychological therapy. Examples of public health interventions could include action to help someone to be physically active or to eat a more healthy diet.

Literature review

Collecting, reading and assessing the quality of published (and unpublished) articles on a given topic. Also called a narrative review.

Longitudinal study

A study of the same group of people at different times. This contrasts with a *cross-sectional study*, which observes a group of people at one point in time.

Meta-analysis

A method often used in *systematic reviews*. Results from several studies of the same test or treatment are combined to estimate the overall effect of the treatment.

Methodological quality

The extent to which a study's research methods conformed to recognised good practice.

Methodology

Describes how research is done, including how information is collected and analysed, and why a particular method has been chosen.

The overall approach taken by a research project: for example, the study could be a *randomised controlled trial* of 200 people over 1 year.

Morbidity rate

The number of cases of an illness, injury or condition within a given time (usually a year).

It can also refer to the percentage of people with a particular illness, injury or condition within a defined *population*.

Mortality rates

The proportion of a *population* that dies within a particular period of time. The *rate* is often given as a certain number per 1000 people.

Multi-centre study

Participants for the study are selected from different locations or *populations*. For example, from different hospitals or even different countries.

Non-randomised controlled trial

A *clinical trial* with a *control group* in which patients are not put in the study or control group by chance (*randomisation*). Instead, they are sorted using other *methods*.

Number needed to treat (NNT)

The average number of patients who need to be treated to get a positive outcome. For example, if the NNT is four, then 4 patients would have to be treated to ensure one of them gets better. The closer the NNT is to one, the better the treatment.

For example, if you give a stroke prevention drug to 20 people before one stroke is prevented, the number needed to treat is 20.

Objective measure

A measurement that reduces the possibility of subjective interpretation by observers and study participants.

Observation

A research technique that involves watching, listening to and recording behaviours, actions, activities and interactions.

Observational study

Individuals or groups are observed or certain factors are measured. No attempt is made to affect the outcome. For example, an observational study of a disease or treatment would allow 'nature' or usual medical care to take its course. Changes or differences in one characteristic (for example, whether or not people received a specific treatment or *intervention*) are studied without intervening.

There is a greater risk of *selection bias* than in *experimental studies*.

Odds ratio

Odds are a way to represent how likely it is that something will happen (the *probability*). An odds ratio compares the probability of something in one group with the probability of the same thing in another.

An odds ratio of 1 between two groups would show that the probability of the event (for example a person developing a disease, or a treatment working) is the same for

both. An odds ratio greater than 1 means the event is more likely in the first group. An odds ratio less than 1 means that the event is less likely in the first group.

Sometimes probability can be compared across more than two groups - in this case, one of the groups is chosen as the 'reference category', and the odds ratio is calculated for each group compared with the reference category. For example, to compare the risk of dying from lung cancer for non-smokers, occasional smokers and regular smokers, non-smokers could be used as the reference category. Odds ratios would be worked out for occasional smokers compared with non-smokers and for regular smokers compared with non-smokers. See also *confidence interval*, *relative risk*, *risk ratio*.

Outcomes

The impact that a test, treatment, policy, programme or other *intervention* has on a person, group or *population*. Outcomes from *interventions* to improve the public's health could include changes in knowledge and behaviour related to health, societal changes (for example, a reduction in crime rates) and a change in people's health and wellbeing or *health status*. In clinical terms, outcomes could include the number of patients who fully recover from an illness or the number of hospital admissions, and an improvement or deterioration in someone's health, functional ability, symptoms or situation. Researchers should decide what outcomes to measure before a study begins.

P value

The p value is a statistical measure that indicates whether or not an effect is statistically significant.

For example, if a study comparing two treatments found that one seems more effective than the other, the p value is the *probability* of obtaining these results by chance. By convention, if the p value is below 0.05 (that is, there is less than a 5% probability that the results occurred by chance) it is considered that there probably is a real difference between treatments. If the p value is 0.001 or less (less than a 1% probability that the results occurred by chance), the result is seen as highly significant.

If the p value shows that there is likely to be a difference between treatments, the *confidence interval* describes how big the difference in effect might be.

Placebo

A fake (or dummy) treatment given to participants in the *control group* of a *clinical trial*. It is indistinguishable from the actual treatment (which is given to participants in the *experimental group*). The aim is to determine what effect the *experimental treatment* has had - over and above any *placebo effect* caused because someone has received (or thinks they have received) care or attention.

Placebo effect

A beneficial (or adverse) effect resulting from someone thinking they have been given a treatment. This can occur when people in the *control group* of a study take a *placebo*.

Prevalence

Used to describe the proportion of people in a *population* who have a particular habit, a particular disease or another characteristic. For example, smoking prevalence relates to the proportion of people who smoke in a given population. Prevalence may be expressed in relation to a range of factors including age, sex, socioeconomic and ethnic group. See also *incidence*.

Primary care

Healthcare delivered outside hospitals. It includes a range of services provided by GPs, nurses, health visitors, midwives and other healthcare professionals and *allied health professionals* such as dentists, pharmacists and opticians.

Probability

How likely it is that an event will occur. For example, the likelihood that a treatment or *intervention* will help alleviate a health problem. See also *odds ratio*.

Prospective study

A research study in which the health or other characteristic of participants is monitored (or 'followed up') for a period of time, with events recorded as they happen. This contrasts with *retrospective* studies.

Protocol

A plan or set of steps that defines how something will be done. Before carrying out a research study, for example, the research protocol sets out what question is to be answered and how information will be collected and analysed.

Publication bias

Publication bias occurs when researchers publish the results of studies showing that a treatment works well and don't publish those showing it did not have any effect. If this happens, *analysis* of the published results will not give an accurate idea of how well the treatment works. This type of *bias* can be assessed by a *funnel plot*.

Qualitative research

Qualitative research explores people's beliefs, experiences, attitudes, behaviour and interactions. It asks questions about how and why. For example, why people want to stop smoking, rather than asking how many people have tried to stop. It generates non-numerical *data*, such as a person's description of their pain rather than a measure of pain. Qualitative research techniques such as *focus groups* and *in depth interviews* may be used when developing NICE guidance to find out more about the views and experiences of the *target population* or practitioners.

Quantitative research

Research that generates numerical *data* or data that can be converted into numbers. An example is research using *clinical trials*. Another example is the national Census, which counts people and households. It might involve questions like: 'How many people visit their GP each year?'; or 'What proportion of children have had this vaccine?'.

Quasi-experimental study

A study based on a true experimental design meets two criteria: manipulation of a *variable* factor between two or more groups, and random assignment of participants

to those groups. A quasi-experimental study uses the first criterion but participants are not randomly assigned to groups. This means a researcher can't draw conclusions about 'cause and effect'. This design is frequently used when it is not feasible, or not ethical, to conduct a *randomised controlled trial*.

See also *experimental study* and *non-experimental study*.

Randomisation (random allocation)

Assigning participants in a research study to different groups without taking any similarities or differences between them into account. For example, it could involve using a random numbers table or a computer-generated random sequence. It means that each individual (or each group in the case of *cluster randomisation*) has the same chance of receiving each *intervention*.

Randomised controlled trial

A study in which a number of similar people are randomly assigned to two (or more) groups to test a specific drug or treatment. One group (the experimental group) receives the treatment being tested, the other (the comparison or *control group*) receives an alternative treatment, a dummy treatment (*placebo*) or no treatment at all. The groups are followed up to see how effective the *experimental treatment* was. *Outcomes* are measured at specific times and any difference in response between the groups is assessed statistically. This method is also used to reduce *bias*.

RCT

See *randomised controlled trial*.

Relative risk

The ratio of the risk of disease or death among those exposed to certain conditions compared with the risk for those who are not exposed to the same conditions (for example, the risk of people who smoke getting lung cancer compared with the risk for people who do not smoke).

If both groups face the same level of risk, the relative risk is 1. If the first group had a relative risk of 2, *subjects* in that group would be twice as likely to have the event happen. A relative risk of less than one means the outcome is less likely in the first group. Relative risk is sometimes referred to as *risk ratio*.

Reliability

The ability to get the same or similar result each time a study is repeated with a different *population* or group.

Risk factor

Any aspect of a person's lifestyle, environment or pre-existing health condition that may increase their risk of developing a specific disease or condition.

Selection bias

Selection *bias* occurs if:

a) The characteristics of the people selected for a study differ from the wider *population* from which they have been drawn, **or**

b) There are differences between groups of participants in a study in terms of how likely they are to get better.

Selection criteria

The criteria used to decide which studies should be included and excluded from consideration as potential sources of evidence when developing NICE guidance. It can also refer to a set of conditions that must be met for someone to take part in a *clinical trial* (such as age and sex).

Statistical power

The ability of a study to demonstrate an association or *causal relationship* between two *variables* (if an association exists) means that the study is statistically significant. The statistical power of a study is primarily related to the number of people included. If too few people are included, any differences in the *outcomes* will not be statistically significant.

Study type

The way a study is designed. *Case-control study*, *cohort study*, *non-randomised controlled trial*, and *randomised controlled trial* are all examples of study types using different research methodologies.

Subject

A person who takes part in an experiment or research study. Also known as a *study participant*

Systematic review

A review in which evidence from scientific studies has been identified, appraised and synthesised in a methodical way according to predetermined criteria. It may include a *meta-analysis*.

Validity

In a study, *validity* is the degree to which the conclusions that the researchers make can be considered to be 'true', based on how well the study was designed and how well it matched 'real life' situations. See also *external validity*, *internal validity*.