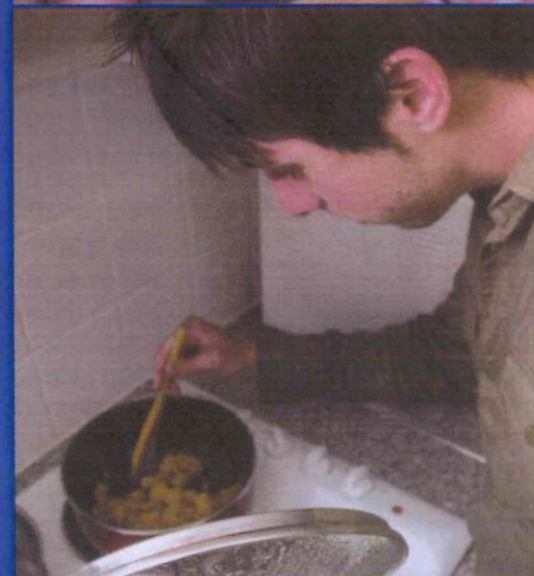


A systematic scoping review of the research on counselling in **Higher and Further Education**

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SECTION 1: OVERVIEW

1.1 Aims and objectives

The review of research on student counselling was commissioned by BACP with the objective of providing a systematic scoping review of the research on counselling in HE and FE. The aim of the review is to map out the primary areas and domains of research activity and assemble the best quality research evidence in those areas.

1.2 Scope of the review

Population and setting

- For the main part of the review, the population studied was students of any age or status attending a mental health service (hereafter termed student counselling service) for individual therapy provided within an institution of higher or further education (college or university). These studies were characterised by higher generalisability but lower internal validity.
- In addition, studies were reviewed which are of the highest quality (ie they include a control group) but where the students have not been recruited from a student counselling service. These studies yielded findings which had higher internal validity but lower generalisability.

Interventions

- For the main part of the review, the interventions included were those that were evaluated within a student counselling or psychotherapeutic context. That is, the participants were students recruited from a dedicated student counselling service and the therapy took place within that service. Although the definition of counselling/psychotherapy was not an inclusion/exclusion condition, all the resulting studies reviewed fell within this criteria (or were assumed to fall within the criteria where the term 'counselling' had not been defined within the study).
- Where the study took place outside of the student mental health service, the definition of counselling/psychotherapy as outlined by the BACP (2005) was applied as an inclusion/exclusion criteria.

Design

- A hierarchy of evidence approach was taken, consistent with Cochrane EPOC Review Group. A wide range of designs was evaluated (including experimental and non-experimental quantitative research, and qualitative research) Randomised controlled trials (RCTs), non-randomised controlled trials (CTs), controlled clinical trials (CCTs), controlled before and after studies, and interrupted time series were prioritised.
- Eleven electronic databases, including PsycInfo and Medline, were searched, revealing nearly 30,000 citations.

1.3 Research areas reviewed

The review identified and summarised the best quality research falling into one of three broad areas. These areas of research were agreed through consultation with the BACP and AUCC.

- **The effectiveness of student counselling/psychotherapy**
- **Factors affecting the outcome of student counselling**
- **Intake severity and assessment of students attending counselling services**

1.4 Findings

Effectiveness

- There was preliminary evidence that psychodynamic therapy was effective for student counselling populations (low-quality non-experimental research designs).
- There was preliminary evidence that short-term therapy was effective, with three out of four studies reporting positive results (non-equivalent control groups designs, therapeutic orientation undefined).
- There was tentative evidence that crisis intervention was useful in preventing drop-out from university (single study, quasi experimental/non-equivalent group design).
- There was limited evidence that cognitive therapy was effective in reducing test anxiety (RCT, single study).
- There was limited evidence that cognitive therapy was effective in reducing unresolved traumatic experiences (RCT, single study).

Factors affecting outcome

- Static client and therapist variables were found not to be associated with outcome.
- lil The research relating to complex client and therapist variables was too diverse to permit definitive conclusions to be drawn. Two promising findings are outlined as follows:
- 1) Cognitive (eg thinking patterns, self efficacy) and psychological (eg optimism/hope) resources in students appeared to protect against premature termination in therapy;
 - 2) Therapist responsiveness to clients' needs, (ie where therapists are responsive to clients' varying requirements, adapting their interventions so as to maximise effectiveness) seemed to be an emerging theme in terms of its salience to outcome of therapy.

Intake severity and presenting problems

- Most of the research pertaining to symptom severity was conducted in the US in single institutions, limiting generalisability to UK populations and across service populations.
- Multivariate classification schemes employed to categorise presenting problems appear to be a promising method of 'profiling' vulnerable students.
- Social support systems, trauma screening and alcohol use have been reported to impact on student distress levels and should therefore be incorporated into standard assessment procedures (single studies).

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1.5 Conclusions

- The evidence base associated with student counselling is characterised by low quality and/or research designs that are inappropriate to the research questions.
- Future research needs to be more co-ordinated, more focused in the breadth of area covered, and raised in terms of methodological quality to permit conclusions to be drawn and recommendations to be implemented at government and service level.
- In the context of finite resources and increasing demands for an evidence base, there is a strong argument for government supported funding to deliver a co-ordinated UK national study to evaluate student access to routine student counselling and establish its effectiveness. This would parallel current government initiatives looking at models of improving access to psychological treatments (Layard, 2005).

SECTION 2: BACKGROUND

The activities of further and higher education are major areas of continuing growth within the UK market, a growth supported by government initiatives and aspirations. Similarly, there is an increasing focus on the psychological health and well-being of individuals who will be required to function within an increasingly demanding marketplace. A key component in the provision of psychological health and well-being is that of counselling and its cognate disciplines. The purpose of this scoping review is to consider the scope and yield of research on the activity of counselling as it relates to students in further and higher education.

2.1 The world of further education (FE) and higher education (HE)

2.1.1 Current government policy

Over the past few years, the government and education systems have placed an emphasis on expanding participation in higher education. This has occurred both in terms of (a) increasing the overall numbers of students, and (b) in providing opportunities and encouragement for widening participation in both further and higher education systems.

As set out in the White Paper *The Future of Higher Education* (2003), the government is aiming to increase participation at initial entry level in 2010 from the current figure of 43% to a figure of 50% of those aged 18-30. Accommodating such a rate of expansion is expected to come through the development of new types of qualifications such as foundation courses. These will be tailored to meet the needs of both the students and the economy by teaching specific job-related skills.

Proposals to widen participation have additionally been keyed into building better links between schools and colleges and also into raising the aspirations of young people. In particular, attention is focused on those who previously may not have traditionally applied for further qualifications, namely those people from lower social classes or those with lower attainment rates. A key component in the government proposals is to ensure that the expansion in capacity does not jeopardise the quality and standard of education provided. Accordingly, putting in place procedures to improve retention rates through providing adequate support and flexibility within the education pathway will be paramount to the success of the increased participation initiatives.

The Higher Education Funding Council for England (HEFCE) is currently working on increasing the demand for higher education and supporting the progression from school and further education to the sector (HEFCE, 2005/03). Their work is being conducted in collaboration with faculties such as the Learning and Skills Council, the Department for Education and Skills, and higher education institutions across England. The aims are focused on raising aspirations and attainment under an 'Aim Higher' scheme and also at addressing inequalities in participation.

In ensuring that supply can adequately meet the demand for higher education the council has been addressing issues of support throughout the student life cycle. Examples include: supporting better preparation, fairer admissions, flexible progression, and improved student success. The council has additionally encouraged higher education institutions to undertake widening participation strategies. These involve higher education institutions considering, for example, how well they are able to meet diverse student demands and encouraging them to build links with local authorities and the community. It is believed that such action will create new pathways into higher education. Not all higher education institutions have, as yet, taken the opportunity to address widening participation strategies. However, the council aims to increase the number of higher education institutions involved over the coming years (HEFCE, 2005/03)

Recent evidence has indicated that the proportion of young people taking A Levels has

already begun to increase (Aston and Bekhradnia, 2003). Age Participation Index figures (DFES, 2002) also report increases in the participation both of females and those drawn from the highest social class groups in higher education. These increases contribute to the growing gap between female and male participation rates as well as to the varied rates between socio-economic classifications and variation between regions (Aston, 2003).

2.2 Student mental health

Concerns regarding widening participation and increased student enrolment have heightened the focus on the area of student mental health. In consequence two significant reports have been published in recent years. Firstly, the Association for University and College Counselling (AUCC, 1999), in their report entitled *Degrees of Disturbance. The New Agenda*, drew attention to the apparent increase in levels of psychological disorder among higher education students. The report acknowledged that although there was broad agreement from counselling services that the severity of emotional and behavioural disturbance amongst university students was increasing, empirical evidence in support of this consensus was extremely limited. In response, the Royal College of Psychiatrists (RCP) convened a working group to consider the evidence for and implications of increasing morbidity, results of which are found in their report *The Mental Health of Students in Higher Education* (RCP, 2003).

Evidence put forward by the RCP (2003) report suggest that students report increased levels of symptoms compared to age-matched controls. However there is no empirical evidence to confirm that students are more likely to suffer diagnosable mental disorder. Suggestions are made that significant stressors, such as the transition from the home environment, independent study, financial pressures and examinations may contribute to the higher rate of emotional symptoms.

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There are a few studies offering empirical evidence of the heightened levels of student psychopathology. Webb and colleagues (1996) found that 12.1% of male students and 14.8% of female students had measurable levels of depression ranging from mild to severe when measured on the Hospital Anxiety and Depression Scale (HADS; Zigmond and Snaith, 1983) This figure was slightly higher than the 11.4% reported in the general population (Crawford et al, 2001). In addition, 23% of male and 35% of female students scored above 10 on the HADS, a score denoting 'probable' clinical anxiety in psychiatric outpatients (Zigmond and Snaith, 1983). Similarly, Roberts and Zelenyanski (2002) found that scores on the General Health Questionnaire 12-item version (GHQ-12; Goldberg and Williams, 1988) for a sample of London students were significantly worse than established norms for people of comparable age and sex as reported in the Health and Lifestyle Survey (Cox, 1987).

A survey of 1st-year postgraduate research students and a larger sample of 2nd-year students at the University of Leicester (2002) showed that 10.5% of 1st years, and 13% of 2nd years had scores indicative of moderate distress on the depression subscale (Hayes, 1997) of the Brief Symptom Inventory (BSI; Derogatis, 1982), and 12.5% of 1st years and 14% of 2nd years showed moderate distress on the obsessive compulsive scale (Hayes, 1997).

A survey of full-time undergraduate students at the University of Leeds (Bewick, Bradley and Barkham, 2004) showed that according to the GP-CORE (Sinclair, Barkham, Evans, Connell and Audin, 2005) approximately 12% of students had raised levels of psychological distress prior to coming to university. This figure climbed to 20% for 1st- and 2nd-year students, while for final-year students 25% reported elevated levels of psychological distress.

Recent research by Andrews and Wilding (2004) found a significant increase in both HADS anxiety and depression means from before entry to mid course. Their results suggest that by mid course 9% of previously symptom-free students had become depressed and 20% had become anxious at a clinically significant level.

2.3 Counselling within FE and HE institutions

There is evidence to suggest that there is a progressive increase in the number of students presenting to counselling and student health services (RCP, 2003). Research conducted at Leeds University shows a rise in the number of clients each year since 1996, from an initial level of 524 new clients, to the recent level of 859 (Waller et al, 2005). Whilst the increase could be attributed to a general increase in student numbers, particularly from non-traditional backgrounds, or due to an increased willingness to describe their symptoms, the report suggests that this increase may be a result of the progressive narrowing of health services. This has meant that university counselling services are the primary mental health care option for many students. However, there have been criticisms that insufficient infrastructure and support mechanisms have been put in place to underpin the planned growth in student numbers. Whilst an increasing number of students are turning to student counselling services, staff numbers are not increasing in proportion. This is exacerbated by difficulty in accessing NHS services, potentially resulting in students with increasing levels of psychological problems being seen within the student counselling context (Royal College of Psychiatrists, 2003). The AUCC survey (AUCC, 2004) indicates that although average counselling budgets have risen over the last decade, when changes in student numbers are factored in, the average counselling budget per student has fallen in real terms. This has implications for the evaluation of counselling services and research into the effectiveness of student counselling. The greater part of this work is carried out within the service setting by practitioners (Breakwell, 1987). Increasing demands on practitioners' time will probably reduce the likelihood of research activity rather than enhance it.

2.4 Building an evidence base

A key driver in relation to the current scoping review is the need to build a robust evidence base for the activity of student counselling. Two research approaches which have been adopted in the area of intervention studies are (1) efficacy trials, which place an emphasis on internal validity, and (2) effectiveness studies, which place an emphasis on external validity. The former approach has generally been associated with the paradigm of evidence-based practice, and a premium is placed on determining causality (eg Bower and King, 2000). The latter approach is more associated with the paradigm of practice-based evidence and a premium is placed on capturing evidence from the delivery of routine practice (eg Barkham and Mellor-Clark, 2000). Importantly, each paradigm does not claim an exclusive right to particular research designs and there is no reason, in principle, why innovative RCT designs could not be made to be embedded within routine service delivery. However, it is equally true to say that designs at the top of the hierarchy of evidence (ie RCTs and CCTs) tend to be rare within the practice-based paradigm.

2.4.1 Hierarchy of study designs

The hierarchy of study designs places study types in order of their perceived scientific merit. Scientific merit is based upon an assessment of the internal validity of a study which is the degree to which a study employs measures to minimise bias (eg randomisation) and hence approximate the 'truth'. Studies which are biased tend to produce results that depart systematically from the 'true' results (Khan et al, 2001). The design types outlined below are placed in hierarchical order. However caution should be taken in the strict adherence to the hierarchy since, for example, a well designed quasi-experimental trial may have greater merit than a poorly designed randomised controlled trial.

Systematic reviews are designed to provide a comprehensive accounting of all randomised controlled trials relating to a particular therapy or problem area. Trials are located through methods such as electronic database searching, and the review follows a pre-planned protocol to determine which studies have the appropriate level of quality and are thus eligible for inclusion in the overall summary of the available literature (Gilbody and Petticrew, 1999).

Meta-analysis goes one step beyond systematic review and uses statistical techniques to quantify the summary of the literature. Thus Smith et al summarised 475 studies of counselling and psychotherapy and reported that, based on this massive database, the average psychological therapy client was better off than 66% of patients who did not receive psychotherapy (Smith, Glass and Miller, 1980).

Randomised controlled trials (RCTs) treat the provision of counselling and psychotherapy like any other treatment, and seek to provide a valid measure of their effectiveness by randomly allocating some patients to receive a particular treatment and the others to a control group, which might be no treatment, a placebo, a waiting list or another brand of psychotherapy. Implemented correctly (and there are a large number of criteria relating to the 'quality' of trials), such studies can effectively rule out all other possible causes of changes in client outcome (such as the passage of time) to determine whether the observed effects on outcome are genuinely related to the treatment provided (Bower, 2003).

Non-randomised case control trial/quasi experimental study (CCT) in which the investigator has control over the allocation of participants to groups, but does not attempt randomisation for ethical reasons or issues concerning feasibility (eg patient or therapist preference). This design differs from a 'cohort study' in that the intention is experimental rather than observational.

Pre-test/post-test non-equivalent groups design in which the experimental group and the comparison group is set up on some basis other than random assignment. In some non-equivalent group designs the researcher employs a non-clinical group as a control, leading to non-equivalence in base line severity which compromises the internal validity of the study.

Uncontrolled pre-post designs enable a comparison of findings in study participants before and after an intervention. The difficulty with this type of design is in inferring causality, being vulnerable to history (other events apart from the intervention occurring between measures) and maturation (developments in the group between measures). Uncontrolled pre-post designs in this review were sometimes observational, as in service audit studies, where the researcher had no control of the introduction of the intervention.

Cross-sectional correlation study involves the examination of the relationship between variables as they exist in a defined population at one particular point in time. There is no treatment or manipulation. This design simply determines whether two variables are related but can make no assumption concerning causality.

Cross-sectional survey is a survey or questionnaire describing the relationship between variables as they exist in a defined population at one particular point in time. The value of this 'snap shot' approach depends on choosing a representative, non-biased sample.

2.4.2 Context of research in counselling in HE and FE

The traditional hierarchy of evidence is well suited to the paradigm of evidence-based practice. However, there are both potential and real issues when such a hierarchy is applied to counselling and the psychological therapies (Bower and Barkham, 2006). In relation to research in the area of student counselling, expectations of the level of evidence available may need to be adjusted downwards. It is likely that, as with the broader base of counselling and psychological therapies research, research activity will fall into the areas of 'process' and 'outcomes'. However, the former activity is not readily amenable to an RCT design, while the latter activity may reside more in the area of audit evaluation than the formal testing of research hypotheses.

2.5 Aims and objectives of the project

In light of the above, the aim of the present report is to provide a systematic scoping review

of the research on counselling in HE and FE with the aim of mapping out the primary areas/domains of research activity and assembling the best quality research evidence in relation to counselling in HE and FE, together with appropriate critical comments on the research methodology, and possible priorities and directions for future research.

Within these aims, we identify two main phases of work which comprise the following:

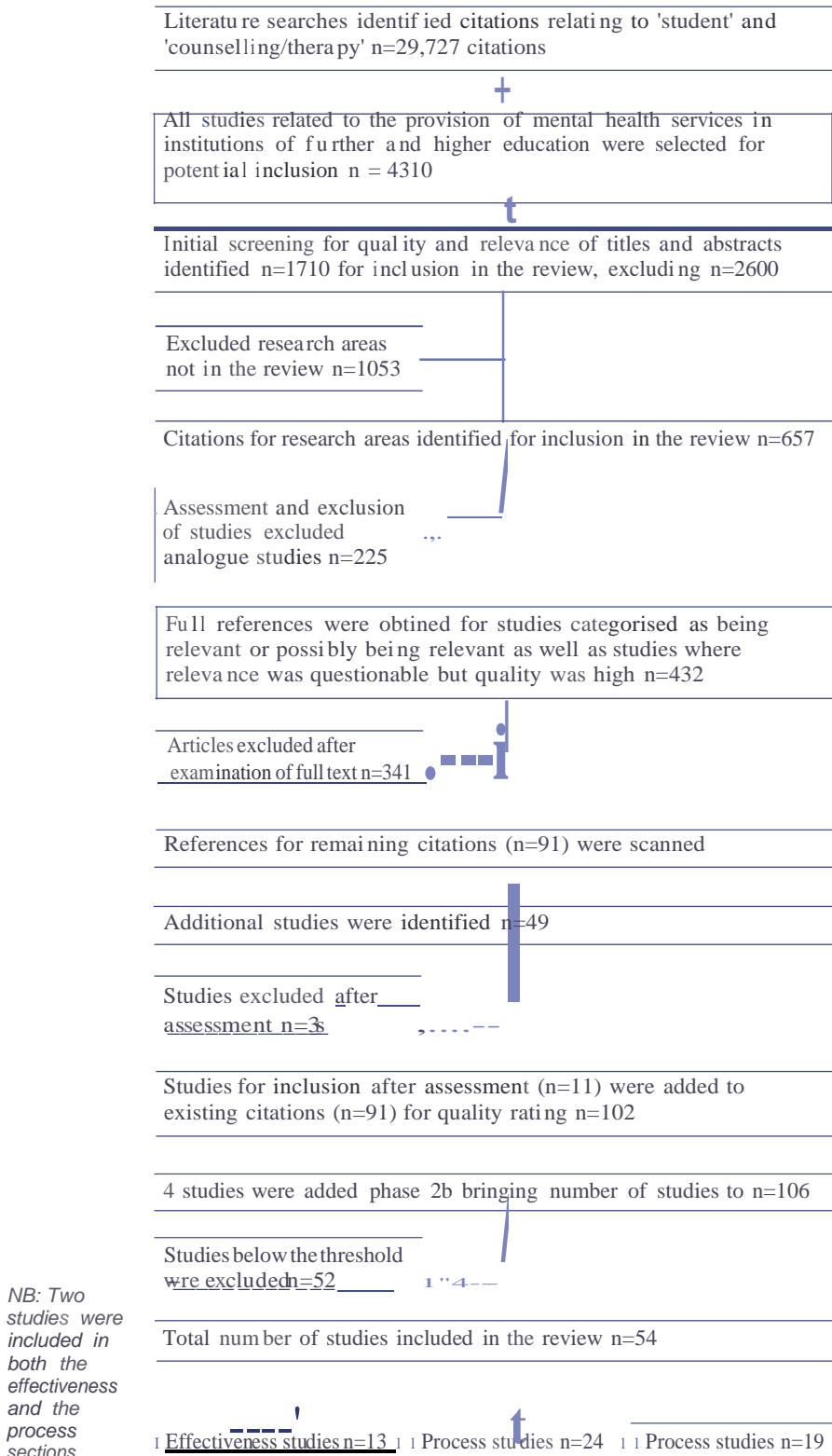
Phase 1: Aims to provide an overview (ie scope) of counselling research in HE and FE from which to identify, in liaison with BACP, priority areas for the review

Phase 2: Aims to identify the best evidence in the prioritised areas of research, and assess their methodological strengths and weaknesses; identify the range of counselling interventions; and identify implications for research, policy and practice.

SECTION 3: METHODOLOGY

The review was carried out in two main phases. Phase 1 consists of the scoping of the literature related to student counselling in order to examine the breadth and depth of the literature. This process was carried out in order to inform the research areas to be included in Phase 2, the main part of the review.

Figure 3.1: Overview of literature search and retrieval



3.1 Phase 1: Scoping

3.1.1 Search strategy

All searches were carried out by information professionals at the Health Sciences Library, University of Leeds. Comprehensive search strategies, designed to achieve maximum sensitivity, were constructed for each of the databases searched. Search terms relating to students, higher education and counselling/therapy were included. Results were limited to years 1990 to 2004 and to English language publications only. See Appendix A for full details of the search terms used.

Table 3.1 details the databases searched, the total number of citations identified by applying the specific search terms and the number of relevant studies selected for potential inclusion in the review. At this stage inclusion was extremely wide-ranging and comprised all citations relating to the provision of mental health services in institutions of higher and further education.

Table 3.1: Number of citations identified and selected

Database	Total Studies	Selected studies
PsycInfo	12,343	2,467
Medline	6,682	594
ERIC	3,873	607
EMBASE	3,210	155
Digital Dissertations	1,794	143
ZETOC	1,092	142
AEI	272	86
Cochrane Library	152	30
BEi	70	37
SIGLE	155	30
SocAbs	84	18
Total	29,727	4310

3.1.2 Screening citations for potential inclusion

Citations identified in the searches outlined in Table 3.1 were exported into Endnote. Duplicates were removed using the endnote 'remove duplicates' facility before initial screening commenced. Due to the volume of articles, it was necessary to split the results from each of the databases by year. Three research staff at PTRC – Janice Connell (JCo), Tracy Mullin (TM), and Clare Doherty (CD) – 'sifted' through all citations returned by the searches outlined in Table 3.1 and made a judgment in accordance with the inclusion/exclusion criteria on whether to include the citation in the next stage of the review. During this phase the inclusion criteria were kept very broad with all articles judged to be relevant to student mental health services in higher and further education being included.

3.1.3 Reference management

All the citations identified for potential inclusion after the first screening (n=4310) were downloaded into an Access database (designed and managed by JCo). Use of an Access database allowed high flexibility in the systematic coding of the citations into specific areas of research activity and, in turn, assisted in the further identification of specific inclusion and exclusion criteria in relation to Phase 2 of the review. A further very important advantage of the use of an Access database is that inclusions and exclusions can be tracked throughout the review process and lists of references can be provided for studies included/excluded at every stage of the review procedure.

3.1.4 Research areas identified

As part of the scoping process, each citation identified for potential inclusion was categorised into a broad area of research activity. Table 3.2 shows the area of research and the number of citations identified relating to that area. Many studies were included in more than one research category. Limited time and resources prevented an overview of the research activity in each of the areas being presented. However, references are available for articles included in each of the research areas upon request.

Table 3.2: Research areas identified through scoping process

	Research Area	N Articles*
1	The extent, type or severity of student mental health problems	525
2	Factors associated with student mental health problems (studies often identified by the author as being relevant to student counselling but not directly related to it)	883
3	Strategies aimed at the prevention of student mental health problems	176
4	Strategies aimed at improving student mental health problems	449
5	Effectiveness of strategies aimed at improving student mental health problems	690
6	Articles related to counselling intake (eg symptom severity, presenting problems, assessment/diagnosis/demographics)	196
7	Articles related to the therapeutic process (eg number of sessions, dropouts, therapeutic relationship, waiting time)	728
8	Articles related to access to counselling/psychotherapy including help-seeking behaviour	458
9	Structure/services/administration/ethics/confidentiality of counselling service provision	461
10	Research related to practitioner: training/supervision/ 'burnout'	79
11	Other (none of the above)	371

* The total exceeds the total number of abstracts as many articles related to more than one research area. The figures do not represent all the available research in the field of student mental health: only those retrieved through using the search terms related to students, higher education, and counselling/therapy. Broader mental health terms (eg depression/anxiety) had not been included in the searches.

The titles and abstracts of studies of citations outlined above (n=4310) were screened for relevance and quality. This process was carried by JCo and TM. The reliability of the inclusion/exclusion agreement between the two researchers was tested on a sample of 50 abstracts. The 50 abstracts were rated either 'in' or 'out'. Disagreements were discussed between the two researchers and criteria agreed. A further 30 articles were screened for inclusion/exclusion and 90% agreement was reached. Contrary to the popular adage, a policy of 'if in doubt, leave it in' was adopted. Citations which were either of high quality with doubts about relevance, or of high relevance with doubts about quality, were retained.

at this stage. Table 3.3 presents the exclusion criteria and the number of citations excluded under each criteria.

Table 3.3: Citations excluded for low relevance and/or low quality

	Exclusion Criteria	N Excluded*
	Quality	
1	Descriptive/discussion/outline/explores	432
2	Aims not stated or not focused (poorly written abstract)	17
3	Attitude surveys, perceptions of counselling/therapy	72
4	Studies utilising vignettes/video	100
5	Case studies (illustrative or descriptive only)	29
6	Quantitative studies with less than 20 subjects (RCTs and CCTs retained)	14
7	Book chapter or report, unless clearly reporting findings of research Relevance	23
	Relevance	
1	Not mental health (eg physical health, Aids, smoking, contraception, sexual behaviour)	225
2	Students as 'sample of convenience' and not prime focus of research (eg measure validation/theory testing)	344
3	Subjects not students or mixed sample	197
4	Relates primarily to academic achievement - not mental health counselling	63
5	Relates to self efficacy/identity/personality - not mental health counselling	30
6	Relates to acculturation/racial identity - not mental health counselling	141
7	Indirect general – eg research stated as having implications for student counselling but not directly related	87
8	Generalisability - ethnic population not represented 1n UK (OECD<3000)	80
9	Generalisability - research specific to country of study	124
10	Generalisability - specific population	129
11	Generalisability - course specific	71
12	Generalisability - rare specific problem	29
13	Generalisability - therapy unlikely to be provided in student counselling (eg long-term psychoanalysis, dream therapy)	61
14	General Support (eg peer/tutor/mentor - not counselling)	146

	Exclusion Criteria	N Excluded*
15	Student support services (eg career/academic/health clinics)	213
16	Group counselling	161
17	Pastoral counselling	10
18	Therapist training/education	113
19	Schools/high schools/mixed population	168
20	Rehabilitation counselling/learning disabled	13
21	Duplicate	40
22	Other	19

.. Studies were often excluded for more than one reason

The above screening process resulted in **2,600** articles being excluded and 1,710 articles being included in the next stage. A list of references of studies excluded is available from the authors upon request.

The primary product from phase one, the scoping of the research, is a comprehensive database of research relating to student counselling services. The database is coded by research area, presenting problem, population/ethnicity, and research design. The database is held at the Psychological Therapies Research Centre, University of Leeds, and is available to researchers upon request.

3.2 Phase 2a: Identification and assessment of potential review articles

3.2.1 . 1 Identification of research areas for inclusion in the review

Phase 2 strategically followed on from Phase 1. At this stage, in conjunction with both BACP and AUCC, research areas were identified which were recognised as being both a priority for the profession and achievable within the limited time and resources available. Accordingly, the following research areas were identified for inclusion in the review:

1. Research concerning the effectiveness of individual therapies routinely provided within student mental health services
2. Research on factors affecting the outcomes of individual therapies provided within student mental health services:
 - a) Therapy variables (eg number of sessions, type of therapy)
 - b) Client variables (eg gender, age, status, ethnicity)
 - c) Therapist variables (eg qualifications, experience, ethnicity)
 - d) Combined therapist and client variables (eg working alliance, therapeutic relationship)
3. Research related to intake into student mental health services:
 - a) Symptom severity
 - b) Presenting problems
 - c) Assessment

These research areas relate to areas 5, 6 and 7 in Table 3.2. This resulted in a total of **678** articles being included in the next stage of the review.

3.2.2 Exclusion of analogue studies

An additional decision made at this stage was that only studies where the subjects had been recruited from a dedicated student counselling service were to be included. Much of the research surrounding student mental health takes the form of analogue studies. Subjects are often volunteers recruited from psychology undergraduate classes or via advertisements posted around the institution. Such volunteers are not regarded as being representative of the population receiving and/or in need of student counselling services.

It was often difficult to ascertain from the title or abstract the source from which research subjects had been recruited. A judgement was therefore made by two researchers, JCo and TM, about the likelihood that the subjects were recruited from student counselling services. Table 3.4 shows inclusion/exclusion criteria relating to analogue studies, and the number of articles for each rating.

Table 3.4: Ratings of likelihood of subjects being recruited from student counselling services

Yes	Title/abstract indicates recruited from student mental health service	264
Possibly	Possible that subjects could be recruited from student mental health services	127
Unlikely	Unlikely that subjects were recruited from student mental health services	90
No	Title/abstract indicated that students were not recruited from mental health services	135
Don't Know	No indications of where students were recruited from	41

Again, the benefit of the doubt was given to studies which appeared to be of particularly high relevance or quality.

3.2.3 Assessment of full articles

The full references were obtained for the 432 studies categorised as 'Yes', 'Possibly' or 'Don't know'. Due to the high costs incurred in obtaining some theses, these were read online where possible – the first 25 pages are allowed free of charge – and likely inclusion/exclusion criteria ascertained. Also due to the high costs, theses had a higher threshold for inclusion and had to be seen as being central to the themes and appear to be of reasonable quality.

The resulting articles (n=432) were further examined for inclusion in the review. Articles were excluded on the basis of the following three criteria: (1) if subjects had not been recruited from a student mental health service; (2) if the hypothesis/aims or objectives were not clearly stated; or (3) fell within the scope of the exclusion criteria outlined previously (see Table 3.3).

The main reason for exclusion was that participants were not recruited from student mental health services. In such cases the subjects tended to be recruited from psychology/counselling courses or were volunteers recruited via media around the university/college. Of those excluded for 'other' reasons the main reasons for exclusion were: therapists were interns/trainees (n=32); descriptive (n=33); low generalisability – ie research specific to country or specific to a population – (n=23).

A total of 341 articles were excluded with 91 articles being eligible for quality rating.

3.2.4 Additional searches

References

The references of all papers eligible for quality rating were hand searched for additional articles falling within the defined themes and thus suitable for inclusion in the review.

Heads of University Counselling Services

An email was sent to all Heads of University Counselling Services via AUCC. A request was made for any research conducted within their departments, eg by post-graduate students, that related to the main research areas identified above (ie effectiveness of counselling, factors affecting outcome, intake assessment).

Journals

The title pages of the journals with the most number of articles eligible for quality rating were hand searched. The following journals were searched: *British Journal of Guidance and Counselling*, *Journal of Counselling Psychology*, *Journal of College Student Psychotherapy*, *Journal of College Counselling*, *Journal of College Student Development*.

These additional searches yielded a further 49 articles of which 11 satisfied the inclusion criteria and were included in the next stage of the review. Hence, the total number of articles identified was 102.

3.2.5 Quality rating of articles

All remaining research studies (n=102) were rated for quality. Different quality rating scales were used according to the research area and design.

Effectiveness studies

Those articles focusing on the effectiveness of student counselling were rated using a checklist developed to assess the methodological quality of both randomised and non-randomised studies (Downs and Black, 1998). The Downs and Black rating scale is regarded as being reliable, easy to use, and particularly suitable for the evaluation of non-randomised intervention studies in systematic reviews (Deeks et al, 2003). To ensure inter-rater reliability, five researchers (Jco, Jca, TM, CD and BB) each rated five studies. Any queries arising from these ratings were discussed with a researcher with expertise in the conduct and supervision of systematic reviews (SG). The range of possible scores was 0 to 27. Scores of articles reviewed ranged from 6 to 19.

Therapeutic process and intake

The studies relating to the therapeutic process and intake variables varied widely in design and quality. Many of these studies were non-intervention studies. Although they were related to therapeutic outcomes, they did not measure outcomes directly. Quality rating scales have almost entirely been developed for intervention studies falling within the Effective Practice and Organisation of Care (EPOC) hierarchy of evidence. Consequently, a rating scale was specifically developed for the present study. This was based on standard appraisal questions outlined by Crombie (1996) which were suitable for all research papers, irrespective of design. These criteria were supplemented by items from the Downs and Black quality rating scale referred to above which were felt to be suitable for all research designs, in particular those concerning external validity. The range of possible scores was 0 to 18. Scores of articles reviewed ranged from 6 to 17.

Qualitative studies

Qualitative studies were rated using the Critical Appraisal Skills Programme (CASP) *10 questions to help you make sense of qualitative research* (©Milton Keynes Primary Care Trust, 2002). These were rated by one researcher (AM) who was an experienced qualitative researcher, lecturer and supervisor of qualitative research. Scores ranged from 4 to 10.

Derivation of quality cut-off scores for inclusion in review

Quantitative research: A method was derived for obtaining a cut-off point on the quality scale

that would distinguish between better-quality studies to be included in the review versus poorer-quality studies that would be excluded. A stratified sample of 20 articles covering the range of quality scores from both outcome and therapeutic process articles was independently reviewed by an expert (MB). Each article received a binary rating of 'include' or 'exclude' and, when the task was completed, was then checked against the original rating. All 'excluded' articles were found to have a rating of 11 or less and all 'included' studies a score of 12 or more. Hence, we adopted 11/12 as the cut-off point, both for identifying which articles to include in the review and which articles to be data extracted.

Qualitative research: The last item of the CASP scale relates to the value of the research. All articles scoring above 6 received a 'pass' for this item whilst articles scoring below 6 'failed' this item. A cut-off score of 6/7 was therefore considered appropriate.

Fundamental flaws

Four articles were excluded because it was considered that an aspect of the research seriously undermined the results even though the article scored above cut-off on the quality rating scale. An example of this is research relying entirely on in-house non-validated measures.

Data extraction and inclusion in review

A total of 50 articles were rated above the cut-off score and were not considered to have a 'fundamental flaw'. The data was extracted from these articles by four researchers (BB, JCa, JCo, TM). Limited time and resources did not allow articles to be double extracted.

3.3 Phase 2b: Non practice-based research

During the review procedure, it became clear that research on the effectiveness of student counselling being conducted within student counselling services was more akin to service evaluation, with the majority of research studies being based on a simple 'before and after' design. Research of this nature carried out in student counselling services has high external validity (being representative of clients normally seeking and receiving therapy) but at the expense of internal validity. Randomised and/or controlled clinical trials reduce biases and confounding effects, thereby giving the research higher internal validity.

In an attempt to redress this compromise between internal and external validity, a decision was made, in conjunction with BACP, to include in the review the highest quality, non practice-based outcome research. The criteria for inclusion in this phase of the review were: (a) research concerning the effectiveness of counselling/psychotherapy, (b) which was experimental in nature, and (c) utilised either a control or comparison group. The titles and abstracts of all articles which had been excluded due to the subjects not being recruited from student counselling services were examined. The full copies were checked where available from the previous stages of the review and 16 additional full copies were ordered and examined. A total of 157 potential articles were initially identified. However, further scrutiny by four researchers (JCa, JCo, BB and TM) yielded only four articles suitable for inclusion. The main exclusion criteria were 'group therapy', 'not counselling/psychotherapy' (often psycho-educational, workshops) and 'no control group'. All four articles were rated above the cut-off of 11/12 on the Downs and Black rating scale and data was therefore extracted.

3.4 Review articles

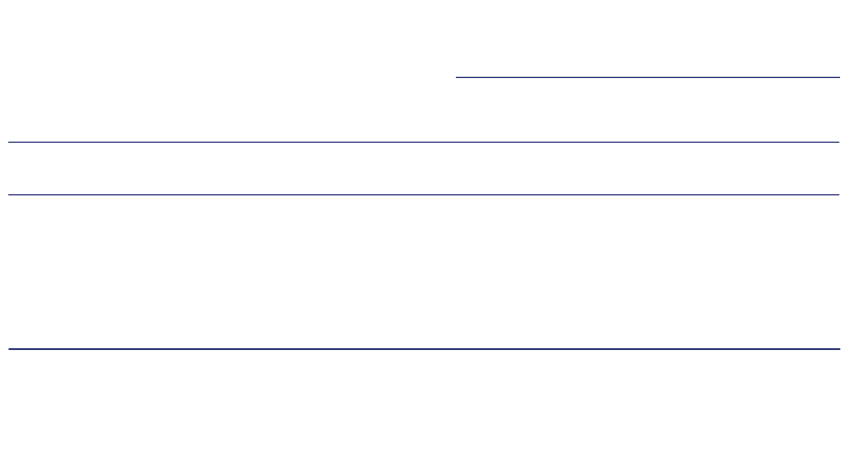
A total of 54 articles are included in the review:

Effectiveness of student counselling	13
Factors affecting the outcome of student counselling	24
Intake severity and assessment	19

NB Two articles are included in both the Effectiveness of Student Counselling section and Factors Affecting the Outcome of Student Counselling.

SECTION 4: EFFECTIVENESS OF STUDENT COUNSELLING

The research literature examined in this section of the report focuses on the effectiveness of student counselling. The section starts with a description of the issues and limitations surrounding effectiveness research, then cites background literature on the effectiveness of counselling and psychotherapy in non-student populations and its relation to the provision of student counselling. The section finishes with an appraisal of the research evidence identified in the review.



Three tables are provided:

1. Summary of the research evidence
2. Effect size difference from pre to post therapy of the intervention groups
3. Effect size difference between the intervention and control groups

4.1 Issues and limitations

4.1.1 Practice-based vs non practice-based research

There is an abundance of research that is carried out in student populations, particularly comprising psychology students, due to their being a sample of convenience. A decision was therefore made that a criterion for inclusion in the review was that subjects were recruited from a dedicated college/university counselling service. The yield of the resulting studies is therefore based on clients in need of and receiving counselling. Such studies should therefore have high external validity in that they are more generalisable to student counselling populations.

Although effectiveness research has higher external validity, it is at the expense of internal validity. Non-randomisation reduces the internal validity of the study, creating biases both known and unknown between the intervention and control group. Only four of the studies reviewed incorporated a control group and none employed randomisation procedures. In an attempt to redress the lack of studies included in the review with high internal validity, a search was made for high-quality studies which included a control group but which had previously been excluded because the subjects had not been recruited from student counselling. Only three randomised control studies were identified and one meta-analysis.

Research conducted in US student counselling services using trainee therapists has been excluded from the review where the number of trainee therapists exceeded 50 per cent. The reason for excluding on this ground is one of generalisability to UK services, which do not employ trainee counsellors. The intervention delivered by therapists in training would be significantly and qualitatively different from that delivered by fully trained therapists. However, it is recognised that research conducted in such training facilities may be of a high quality. A list of references excluded under these criteria (n=46) is therefore provided in the references section.

4.1.2 Quality of evidence and limitations

Much of the research carried out in the context of student counselling is more akin to service evaluation than to efficacy research. Hence, the predominant research design used is a simple 'before and after' design rather than random/controlled trial. Where a control group has been used, 'quasi-experimental' methodology has been applied. In these studies there is no randomisation procedure and the control group is invariably a non-equivalent sample often recruited at a different time or from a different population. Further limitations of the studies include the failure to define or describe the type or length of therapy being delivered, indicating only that therapy was routinely provided within the service setting. In addition, much of the research has been carried out in the USA which has the potential for limiting the generalisability of the research evidence to a UK setting. Readers are recommended to consult the research summaries in Appendix C for more detailed information on the strengths, weaknesses and limitations of the individual studies reviewed.

Taking all the above into account, the reviewed studies should not be regarded as evidence of the efficacy of student counselling. Rather they represent the best quality research that is currently available.

4.2 Background and context

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4.2.1 Efficacy and effectiveness of counselling and the psychological therapies

There is a considerable literature attesting to both the efficacy and effectiveness of counselling and the psychological therapies in general. Numerous meta-analytic studies (eg Shapiro and Shapiro, 1982; Smith et al, 1980) and reviews (eg Barkham, 2002; Lambert and Ogles, 2004) have attested to the overall efficacy of psychotherapy for a wide range of mental health problems. In the quarter century since the landmark study by Smith and colleagues, their findings have not been challenged. Rather, they have been built on by considering the nature of the overall effectiveness in terms of major components such as treatment orientation and length of treatment.

In relation to treatment orientation, there has been a considerable research output reporting on the broad equivalence of outcomes despite the technical diversity inherent in the delivery of theoretically distinct therapies (Stiles et al, 1986; Lambert and Ogles, 2004; Wampold et al, 1997). However, the weight of evidence does not support equivalence of outcomes when restricted to treatments for the anxiety disorders (Roth and Fonagy, 2004). Notwithstanding this specific finding, the field remains torn between those espousing broadly equivalent outcomes across treatment orientations and those claiming the superiority of one theoretical orientation over another.

More recently, there has been growing attention to considering research designs carried out in practice settings and the extent to which findings derived from earlier RCT studies can be transported to such practice settings. This is of particular relevance to counselling students as much of the research into the effectiveness of student counselling has been naturalistic and practice based (Breakwell, 1987). In this respect, the effectiveness paradigm places a premium on the external validity of studies – that is, their relevance to routine practice settings. A meta-analysis of 90 studies found that therapies are effective over a range of clinical

representativeness (Shadish et al, 1997). However, the trade-off for greater relevance is a reduction in the internal validity of studies. Crucially, participants are not randomised to treatments and, accordingly, the component of control is weakened. Ideally, research questions should be informed by both efficacy and effectiveness studies as the two paradigms are complementary rather than mutually exclusive (Barkham and Mellor-Clark, 2003).

It has been suggested, however, that efficacy trials with rigorous exclusion criteria tend to overestimate the benefits of therapy (Shapiro et al, 2003; Westen and Morrison, 2001). An analysis of a representative sample of randomised clinical trials suggested that in carefully controlled and implemented treatments, between 58% and 67% of clients improved (Hansen et al, 2002). By contrast, rate of improvement in routine clinical settings, where the average number of sessions received was less than five, was reported to be only about 20%. It is noteworthy that randomised trials most commonly employ cognitive or cognitive-behavioural interventions whilst naturalistic studies are predominantly of psychodynamic and cognate therapies. This suggests the need for a systematic evaluation of dose-effect relations in contrasting treatment modalities (Shapiro et al, 2003).

4.2.2 Short-term therapy

Definitions of brief therapies

Brief therapy has traditionally been defined as comprising between eight and 26 sessions (Mann, 1973; Malan, 1976; Flegenheimer, 1982). However, recent empirical studies have found that psychotherapy clients attending routine mental health centres typically attend less than five treatment sessions (Hansen et al, 2002). Student populations appear to receive a similar dose with the mean number of sessions in UK student counselling services being between 4.5 and 5.6 sessions (AUCC, 2004). Therapies of six or fewer sessions' duration have been termed very brief interventions (Pinkerton and Rockwell, 1982) or ultra-brief therapy (Shapiro et al, 2003).

The growing demand for psychotherapy in student counselling services has resulted in the employment of short-term or brief psychotherapy in the majority of universities. This is supported by the responses in the Heads of University Counselling Services (HUCS) survey of counselling provision (HUCS, 2002) where the majority of universities (73%) and HE colleges (80%) offered short-term counselling to students with severe mental health problems. Similarly, the US National Survey of Counseling Centre Directors (Gallager et al, 2004) reports that 40% of services limit the number of sessions they offer and that the average number of sessions delivered is 5.6. There is, however, some evidence of an increase in student clients in longer-term counselling with 13% of clients having 8-15 sessions and 7% 16 or more (AUCC, 2001). The proportion of students attending more than 8 sessions increased in all sectors between 1993 and 2002 (AUCC, 2004)

The effectiveness of short-term psychodynamic psychotherapy has been demonstrated by three meta-analyses (Anderson and Lambert, 1995; Crits-Christoph, 1992; Svartberg and Stiles, 1991). In relation to treatment length, there has been a developing literature investigating the dose-effect relationship – that is, the relationship between the amount of therapy delivered and the associated gains. This body of literature has a direct bearing on the argument for and against delivering brief therapies. The number of sessions considered to be a minimum in order for it to be considered that an adequate 'dose' of therapy has been delivered has been eight sessions (Howard et al, 1986). Moreover, initial evidence showed that the relationship between amount of therapy delivered (ie dose) and the improvement achieved (ie effect) was not linear but was best summarised as a negatively accelerating curve. That is, although the percentage of clients who met a criterion of improvement increased with more sessions, the gains diminished over time. Different dose-effect relations have been reported for different patient diagnoses. Howard et al (1986) showed that depressed clients responded earlier to treatment than anxious clients. With respect to interpersonal problems, Maling, Gurtman and Howard (1995) showed that

interpersonal problems involving issues around control changed earlier than detachment and self-effacing interpersonal behaviours, which showed no response. As with the component of theoretical orientation, the findings of Howard and his colleagues have been used in support of both brief- and longer-term therapies. Rapid improvement over early sessions was reported by Hilsenroth, Ackerman, and Blagys (2001) with statistically and clinically significant improvement on well-being and symptom distress after nine sessions of short term psychodynamic psychotherapy.

4.2.3 3 Effectiveness of student counselling

A review of literature on the evaluation of student counselling was conducted in the mid 1980s (Breakwell, 1987) covering the previous twenty years. Breakwell found that research on counselling services was largely conducted by practising counsellors upon their own service. Two small-scale studies were cited. Wilson (1970) reported on the effectiveness of his own counselling service in a college of education. Seventy per cent were reported to have made at least some progress, but what form the progress took was not reported. The other study (Raaheim, 1984) examined study skill techniques rather than psychological counselling. Those who were counselled in study techniques achieved better examination results than a similar group who had not. Breakwell concluded that data analysis in small-scale studies was limited, probably because they were done to check the effectiveness of a particular system rather than the efficacy of counselling more broadly. The majority of studies that did try and address the efficacy of student counselling had not been conducted in Britain. One such study conducted in the United States, (Campbell, 1965) found that students who had received counselling (unspecified) had a 25% higher graduation rate than those who had not been counselled. Only one longitudinal study was reported (Meadows, 1975). One hundred students were contacted seven years after they had received counselling. Compared with 100 uncounselled controls they were less likely to have graduated and were less academically successful. However they did not differ from the control group in terms of job satisfaction and greater work success. As Breakwell points out, it is difficult to assess the actual impact of counselling on these variables. Other studies cited related to study skills counselling (Wankowski, 1983) peer counselling (Brown, 1965; Edgar and Kotrick, 1972) and personality change (Volsky, 1971).

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Breakwell concluded that there had been very few attempts to evaluate the efficacy of counselling. Where attempts had been made, control groups had either not been used at all, or had been used inadequately. In addition, many studies had failed to describe the form that counselling took and data analysis was rudimentary.

Vonk and Thyer (1999) provide an indication of the limited amount of research into the effectiveness of student counselling in the last three decades. They report that there had been only four empirical evaluations of student counselling centres that had focused on short-term therapy outcome in the 25 years prior to their own study (Gelso and Johnson, 1983; Harman, 1971; Keilson et al, 1983; Turner et al, 1996). Each of these studies found short-term therapy to be effective but the research designs were inadequate (Vonk and Thyer, 1999). Both Harman (1971) and Gelso et al (1983) relied on the client and counsellor perceptions of change and satisfaction with counselling, rather than objective outcome measures administered pre and post therapy. Standardised pre-post measures were used by Keilson et al (1983) but the main disadvantage of the study was the exclusion of clients who were outside the normal to moderately disturbed range, a group seen at counselling centres in increasing numbers (Vonk and Thyer, 1999). The final study reported (Turner, 1996) is included in this review.

The limited research cited above indicates a clear need for good quality research into the effectiveness and efficacy of student counselling post 1990.

4.3 Review of research evidence

Table 4.1: Summary of practice- and non practice-based research evidence

Authors	Date	Population	Therapeutic intervention	Study design	Sample	Findings
Carter et al	1999	Undergraduate students at an American University with high anxiety levels determined by the Anxiety Sensitivity Test (AS!; Reiss et al, 1986)	Habituation condition (5 voluntary hyperventilation trials) or habituation plus cognitive restructuring	Comparative groups	24	Habituation alone had no effect. Brief cognitive restructuring procedures can be effective in reducing anxiety amongst high anxiety sensitive students.
Destefano et al	2001	College students from a university counselling centre	Brief problem-managed counselling	Uncontrolled pre- post	80	The treatment group improved significantly in overall adjustment to college compared to the control group who did not experience significant change.
Ergene	2003	Students enrolled in colleges and universities	computerised searches; manual search of key journals and review articles, chapters, books; reference lists of all primary studies; identification of non-published work	A meta-analysis	56 published and unpublished studies on test anxiety reduction	Cognitive or behaviour approaches combined with skill-focused approaches were the most effective interventions for the reduction of test anxiety.
Evans	2003	First-year students attending an Academic Preparation Programme designed to enhance students' mathematics performance	Individual and group counselling	RCT	80	Individual counselling was found to be more effective than group counselling in terms of reducing test anxiety. The type of counselling intervention had no influence on a standardised test of math performance.
Michel et al	2003	Students from university clinic and non-student outpatients	4 session brief psychodynamic therapy	Uncontrolled pre-post	35	Significant improvement was found on the SCL-90R Global Severity Index, the HAD and the HAS scales post therapy.

Nelson et al	2003	College students at a counselling centre in a large research university US	Crisis intervention	Non-equivalent groups	205	Students in crisis who received supportive services remained in school at the same rates as others, suggesting crisis intervention services may be a helpful tool in the university's efforts to retain and graduate students
Pahkinen and Cabbie	1990	Students attending the Student Health Foundation's Psychotherapy Services and Dental Care services in Finland	Routine psychodynamic therapy	Pre-Follow-up	229	Statically significant changes recorded up to six months, but no significant differences defined by length and frequency of therapy
Rickinson	1997	Final-year undergraduate students at a UK university counselling service	Short-term psychodynamic counselling	Non-equivalent groups	43	The clinical group showed clinically significant improvement between 1-4 sessions, compared to negligible change in the control group
Surtees et al	1998	Students at a UK university counselling service	Routine counselling	Pre-Follow-up	122	23.5% of those followed up had no episode at initial assessment or follow up. A quarter of those with an initial episode improved, and half the students had a mixed course
Turner et al	1996	College students who requested psychotherapy at the psychological services centre	CAS (Anton and Reed, 1991). CSQ-8 (Attkisson and Zwick, 1982). MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen and Kaemner, 1989)	Comparative groups	94	Overall, students reported greater adjustment after therapy. No difference was found in treatment effect or client satisfaction between two treatment groups. Students reported greater adjustment after therapy independent of session length
Vonk and Thyer	1999	Students attending or waiting to attend the student counselling service in a USA university	Short-term counselling treatment (4-20 sessions)	Non-equivalent groups	41	The mean post-therapy GSI was significantly lower in the treatment compared to the control group
Wilson et al	1997	Students who had requested counselling in US university counselling service	Counselling	Non-equivalent groups	562	Students receiving counselling enjoyed a retention advantage relative to non-counselled students

4.3.1 Practice-based research

This section reviews nine studies investigating the effectiveness of student counselling as carried out in student counselling services.

The reviewed evidence on the effectiveness of student counselling reflects the predominant provision of brief/short-term psychodynamic or person-centred counselling in student counselling services. Seven out of the nine studies addressed short-term therapy, of which two were described as psychodynamic in orientation and five as routine counselling/psychotherapy with no further definition.

Summary of evidence

Psychodynamic therapy

Three studies examined the effectiveness of psychodynamic therapy. Two examined short-term psychodynamic therapy, one using quasi experimental methodology and one pre-post methods with no control group. The third study used a controlled design to examine the effectiveness of psychodynamic therapy of up to two years in duration, and at five-year follow-up.

The effectiveness of short-term psychodynamic therapy with final-year undergraduates attending student counselling was examined by **Rickinson (1997)**. The mean GSI derived using the SCL-90R for the clinical group showed a clinically significant improvement between the first and fourth sessions as compared to negligible changes in a control group. However, the latter group comprised a non-equivalent group drawn from final-year students not attending counselling. In addition there was only one therapist (the author), seriously limiting generalisability.

Michel et al (2003) used a simple before-and-after design to explore the impact of a four-session 'brief psychodynamic investigation' (Gillieron, 1987). There was a significant improvement on the SCL-90R Global Severity Index, the Hamilton Depression Scale, and the Hamilton Anxiety Scale, with a significantly higher proportion of students within the normal range for each measure at post therapy than pre therapy.

The effectiveness of routine psychodynamic therapy lasting up to two years in duration was examined by **Pahkinen and Cabbie (1990)**. This was a rare follow-up study with data being available at six months, two years, and five years from the start of therapy. A control group of students attending dental services was used. Overall, statistically significant changes were recorded at six months which remained stable up to the five-year follow-up. There were no significant differences between the four groups of the intervention sample receiving differing lengths and frequencies of therapy (crisis therapy – seen several times a week, duration under six months; contact therapy – seen once every two weeks, duration over six months; short-term therapy – seen once a week, duration six months to a year; long-term therapy – seen once a week, duration two years plus). A major limitation of this research study included the absence of basic descriptive data.

Short-term routine therapy

Five studies were reviewed which examined the effectiveness of 'short term' or 'brief' therapy. In these studies the psychotherapy/counselling delivered was not strictly defined, with therapy being that which was routinely provided by the student counselling service. Three studies defined therapy as 'short term' whilst the remaining two studies did not give the length of therapy but indications suggested that short-term therapy was being delivered.

Symptom improvement

A quasi experimental research design, using a non-equivalent control group of waiting list clients, was employed by **Vonk and Thyer (1999)** to examine the effectiveness of 'short-term treatment' (4-20 sessions). The SCL-90R was used as the measure of change with the mean post-therapy Global Severity Index Score (GSI) being significantly lower in the

treatment group compared with the control group. Although the therapy provided was not defined, the orientation of the individual therapists was outlined and was identified by the authors as 'eclectic' with some therapists working primarily from one perspective (short-term psychodynamic or cognitive-behavioural).

Surtees et al (1998) examined the effectiveness of routine counselling at a UK university based on data on symptoms of Major Depressive Episode (MDE) or Generalised Anxiety Disorder (GAD) at 14-month follow-up. Data showed approximately 50% of students had unfavourable outcomes in terms of having either no MDE or GAD at assessment but being symptomatic at follow-up, or meeting MDE or GAD criteria at follow-up as well as at initial assessment. These students showed greater symptomatic distress than the other two outcome groups: the 23% of students not symptomatic either at assessment or follow-up, or the approximately 25% of students symptomatic at assessment but not at follow-up. The length of therapy was not reported, but a cut-off of four sessions was used to determine whether there was a relationship between number of sessions and outcome suggesting the therapy was short term. A limitation of this study was that data was only available at follow-up and not at the end of therapy. Hence, it cannot be ascertained whether students improved post-therapy and then deteriorated over the 14-month period, whether they experienced no improvement post therapy, or whether symptoms were recurrent/episodic.

Adjustment to college

A measure of student adaptation to college was used by **Destefano et al (2001)** to measure the effectiveness of 'brief problem-managed counselling'. Post-test measures were administered after the sixth session. Counsellors indicated a variety of theoretical orientations. Again, a non-equivalent control group was used, drawn from classes across campus and matched for gender and academic classification but not for level of morbidity.

The intervention group was found to improve significantly in their overall adjustment to college whereas the control group members did not experience significant change pre- to post-test. There were significant differences between the pre-therapy scores for the two groups but this difference was not significant at post-therapy.

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Adjustment to college and satisfaction with therapy were used by **Turner et al (1996)** to establish the differential effectiveness of 30-minute and 50-minute therapy sessions. All students reported being better adjusted after therapy with no difference between the 50-minute and 30-minute group. Nor was there any difference in satisfaction with therapy between the two groups.

Retention

An important outcome measure for universities and colleges is whether students complete their degree studies or drop out of education. **Wilson et al (1997)** investigated the retention status after a two-year interval of all clients who had received counselling over a previous one-year period. It was found that a higher percentage of those receiving 1-7 sessions of counselling were either still enrolled or had graduated as compared with those requesting but not receiving therapy. There was also a strong linear trend in which increases in the number of sessions attended were related to increase in retention rates. A limitation of this study is that as well as 'counselling' not being defined sufficiently clearly, the therapeutic orientations of the counsellors are not reported. Since the mode number of sessions was given as four, this research has been added to the evidence for the effectiveness of short-term therapy.

Crisis intervention

Nelson (2003) explored the relationship between retention rates of students who utilised crisis intervention services at a university counselling service. Crisis intervention was defined as a service where emergency services were requested and a standard critical incident form completed. The supposition was that those students who experienced a period of crisis would be more likely to drop out of university. No differences were found between the proportion of students graduating for those students receiving crisis

intervention services, students receiving crisis intervention plus additional counselling services, and a matched sample receiving no crisis or counselling services. Students receiving crisis intervention services enrolled for the same number of semesters as the non-clinical comparison group.

4.3.2 Non practice-based evidence

In an attempt to redress the lack of included studies with high internal reliability, a search was made for high-quality studies which included a control group but which had previously been excluded because the subjects had not been recruited from student counselling. From this search, three randomised control studies and one meta-analysis were identified. Two randomised control studies examined the efficacy of cognitive therapy with students, one with high anxiety sensitive students and the other with students who had experienced unresolved traumatic events. The remaining two studies were primarily concerned with the effectiveness of interventions with students experiencing test anxiety.

Summary of evidence

Cognitive therapy

Carter et al (1999) investigated the effect of cognitive restructuring techniques (Barlow and Cerny, 1988) with high anxiety college students according to the Anxiety Sensitivity Index (ASI; Reiss et al, 1986). Students were randomly assigned to a habituation condition (five consecutive trials of voluntary hyperventilation) or habituation plus cognitive restructuring. It was expected that those in the 'hyperventilation alone' condition would experience a significant reduction in self-reported anxiety, catastrophic cognitions and somatic sensations but that the greatest reduction in symptoms would occur with the addition of cognitive restructuring. Significant decreases in symptoms were experienced by the cognitive restructuring group. Habituation alone had no effect. The results demonstrated that brief cognitive restructuring procedures can be effective in reducing anxiety amongst high anxiety sensitive students.

Whether cognitive therapy is more effective than a pure expression of feelings in the treatment of unresolved traumatic experiences was investigated by Segal and Murray (1994). It was found that cognitive therapy and vocal expression (ie talking into a tape recorder) were similarly effective in helping to process a traumatic experience. The findings suggested that common factors were responsible for any observed improvement (eg expectation of help, the healing situation common to both conditions, exposure to traumatic memories) rather than the specific components of cognitive therapy.

Test anxiety

A meta-analysis of 56 published and unpublished studies on test anxiety reduction was conducted by **Ergene (2003)**. The methods used were: computerised searches of databases; manual search of key journals; manual searches of key review articles, chapters, books and reference lists of all primary studies; identification of non-published work by contacting test and anxiety associations and training and treatment centres. The sample primarily comprised students enrolled in colleges and universities. The overall mean effect size (ES) for test anxiety reduction was 0.65. This means that the average individual completing treatment was seen as better off than 74% of individuals not receiving treatment. It was found that cognitive or behaviour approaches combined with skill-focused approaches were the most effective interventions for the reduction of test anxiety. Behavioural and skill focused combined; cognitive and skill focused combined; and cognitive, behavioural and skill focused combined all produced high effect sizes. Individually conducted programmes and programmes that combined individual and group counselling formats, produced the greatest changes. Programmes that were brief in nature produced higher ESs: maximum effect sizes were associated with 201-350 minutes of treatment and the size of the effect decreased as the duration of treatment moved away

from this range in either direction. Ergene's meta-analysis identified the need for more complete information to be provided on the characteristics of clients involved in test anxiety reduction programmes in order to identify what programmes are effective for whom.

A randomised control study **Evans (2003)** examined the differential effects of individual and group counselling on test anxiety. This was carried out amongst all students attending an Academic Preparation Programme designed to enhance students' mathematics performance. Individual counselling was found to be more effective than group counselling in terms of reducing test anxiety. The type of counselling intervention had no influence on a standardised test of math performance. The validity of the study is compromised as the extent of initial test anxiety amongst the students was not addressed, nor was 'individual' or 'group' therapy adequately defined.

4.4 Conclusions

The majority of the effectiveness studies reviewed in this section are concerned with short-term therapy reflecting current practice and service provision within student counselling. The research evidence has limited use and applicability due to the following limiting characteristics: uncontrolled pre-post designs, controlled studies with non-equivalent non-clinical control groups and poor reporting, including lack of summary data. However, the research does indicate that short-term psychodynamic therapy is effective within student populations and that short-term routine therapy broadly demonstrates positive effects. Crisis intervention was shown to be useful in one study in that students receiving such services were no more likely to drop out of university than students not requesting such services.

What can be concluded from the evidence is that the observations made by Breakwell (1987) in the review of literature on the evaluation of student counselling in the mid 1980s still stand nearly two decades later. Researchers/practitioners have not as yet acted upon Breakwell's recommendations to evaluate the efficacy of counselling by using control groups appropriately and providing adequate definitions of counselling.

Table 4.2: Summary table of pre-post mean scores for intervention groups

Measure	N	Pre-therapy		Post-therapy		P	ES	Study
		Mean	SD	Mean	SD			
Short-term psychodynamic								
Symptom Checklist 90R	43	1.25	0.60	0.49	0.36	<.001	1.5	Rickinson (1997)
Psychodynamic								
Symptom Checklist 90R	35	0.94	0.52	0.70	0.55	<.01	0.45	Micheletal2003
Hamilton Depression	35	9.20	4.50	6.07	3.52	<.001	0.78	
Hamilton Anxiety	35	8.20	4.15	6.15	3.93	<.001	0.45	
Social Adjustment Scale	35	2.11	0.45	1.95	0.51	Not sig	0.33	
Routine short-term unspecified								
Symptom Checklist 90R	41	0.96	0.63	0.42	0.42		1.0	Vonk and Thyer (1999)

Table 4.3: Summary table of mean change scores between intervention and control groups

Measure	N	Pre-therapy		Post-therapy		Difference		Study
		Mean	SD	Mean	SD	Mean diff	ES	
<u>Short-term psychodynamic: Symptom Checklist 90R</u>								
Intervention	43	1.25	0.60	0.49*	0.36	0.76	1.32	Rickinson (1997)
Control	65	0.18	0.43	0.74	0.51	0.07		
<u>Routine short-term unspecified</u>								
Symptom Checklist 90R	41	0.96	0.63	0.42	0.42	0.54	0.97	Vonk and Thyer (1999)
	14	0.67	0.45	0.66	0.61	0.01		
* time 2 measured at session 4								

SECTION 5: FACTORS AFFECTING OUTCOME IN STUDENT COUNSELLING

The following section examines client, counsellor and treatment variables that can potentially affect the outcome of student counselling. The outcome can be symptom improvement, type of termination, or the satisfaction of the client. We have also included the working alliance of the client/therapist as an 'outcome' in this section. Three factors affecting outcome are reported: client variables, therapist variables, and the similarity/compatibility of client/therapist and treatment variables. We begin this section with an overview of research evidence available from the general literature, including student counselling where available, followed by a summary of the research evidence from the current review.

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5.2	Background and context (Summary of research evidence in non-student populations)
5.3	Summary of evidence
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5.3.5	Conclusion

Tables

Two tables are provided showing:

1. Summary of the research evidence
2. A cross tabulation of the process variables by outcome

5.1 Issues and limitations

5.1.1 Diversity of evidence

The research evidence on the variables affecting outcome in student counselling is very diverse with little commonality between the impact factors examined. As a result, making any quantitative summary or providing a synthesis of the evidence is problematic. For this reason, we present a brief summary of each of the studies together with a summary of the studies in Tables 5.1 and 5.2. It is important to state that no definitive conclusions regarding the impact of variables on outcome in student counselling can be drawn from the evidence presented.

There are various reasons for this, primarily concerning the diversity of the factors affecting outcome studied and the low quality of the research designs employed.

5.1.2 Quality of evidence and limitations

The reviewed research represents the best quality research available on the variables affecting the outcome of student counselling. However, the quality of the research on the whole is relatively low. There are very few experimental designs. Instead, there is a heavy reliance on correlation designs using archival data. Archival data is problematic due to the fact that surveys carried out in the past are unlikely to be directly addressing the specific research questions. Where research of a higher quality has been conducted, it often stands in isolation without comparable research being available. A further issue is that clients attending student counselling are often a 'sample of convenience' with the author citing the use of student subjects as a limitation of the research. In these cases, student counselling is not the focus of the research, which limits its applicability to the area. In addition, the majority of the research is conducted in the USA, thereby reducing its generalisability to UK student counselling services.

Research conducted in US student counselling services using trainee therapists has been excluded from the review where the number of trainee therapists exceeded 50%. It is recognised that research conducted in such training facilities may be of a high quality. A list of references excluded under these criteria is therefore provided in the references section.

5.2 Background and context

5.2.1 1 Background to research on client and practitioner variables in counselling and the psychological therapies

There is an extensive literature on client and therapist variables and their impact on outcomes in counselling and the psychological therapies. This research has been summarised in chapters within successive editions of the *Handbook of Psychotherapy and Behavior Change* (eg Beutler et al, 1994, 2004; Clarkin and Levy, 2004; Garfield, 1994).

Notwithstanding the extensive literature, authors have also flagged up the near impossibility of adequately researching all potential client or therapist variables (see Beutler et al, 2004; Clarkin and Levy, 2004). In the past, the field has focused on more static variables such as client demographics (eg age and gender). However, this research has been inconclusive with some authors reporting no significant relationship between client gender and outcome (eg Luborsky et al, 1988) while other authors have reported either inconsistent or conflicting results when examining client gender and outcome (eg Gomes-Schwartz, 1978). The tendency to focus on variables as single entities rather than as part of a rich tapestry of variables has tended to yield disappointing results. In general, reviewers have been pessimistic about finding strong relationships between client variables and outcomes (eg Garfield, 1994). In the area of practitioner variables, reviews have reported a decline in research on the effects of such facets as personality and well-being and key reviews have reported inconsistencies in results (Beutler et al, 2004).

Both therapists' and clients' behaviour are influenced by the emerging context of the therapeutic relationship, including perceptions of each other's characteristics and behaviour. Responsiveness is the mechanism whereby therapists are responsive to clients' varying requirements, adapting their interventions in an effort to maximise effectiveness with each individual. If therapists are appropriately responsive, so that different clients tend to receive appropriately different treatments, then many other client and therapist variables may fail to correlate consistently with outcome, even though they remain important variables to study in counselling and psychological therapy. For this reason it is important to study client and therapist variables within the context of responsiveness (see Stiles, Honas-Webb and Surko, 1998 for a complete review).

5.3 Summary of evidence

Table 5.1: Summary of research evidence

Section	Authors	Date	Population	Measures	Sample	Findings
Termination of therapy	April and Nicolas	1996	Students who were premature terminators at a university counselling centre	Semi-structured questionnaire	20	32% of premature terminators indicated counselling was not needed any more, 27% indicated academic demands, and 18% indicated a negative experience of counselling
	Berry and Sipps	1991	Students from a university counselling centre	MBTI (Myers, 1962); RSE (Rosenberg, 1965)	55	Findings indicated that the greater the similarity between counsellor and client, and the lower the client's self-esteem, the more likely the client terminated prematurely
	Ellingson	1990	Former clients from The University of Utah Counseling Center (UCC) who met 'Early premature terminator' criteria	Semi-structured interviews	10	Clients who meet early premature termination criteria may perceive greater early progress in counselling relative to the perceived 'costs' of counselling, than do clients who persist in counselling for longer
	Hatchett et al	2004	College students involved in individual counselling at a university counselling centre in US	OQ-45 (Lambert et al, 1996); CISS (Ender and Parke, 1990, 1994, 1999); LOT-R (Scheier et al, 1994)	96	Psychopathology interacts with optimism in predicting premature termination. Coping styles were not useful in predicting number of sessions or type of termination

Section	Authors	Date	Population	Measures	Sample	Findings
Meticulous	Longo et al	1992	University counselling centre clients at intake appointments	Self-efficacy for client behaviors scale, (unpublished measure); EAC (Tinsley et al, 1980); CPIQ (Kokotovic and Tracey, 1987); SES (Rosenberg, 1965); STAI-S (Spielberger, 1983)	139	Self-efficacy and motivation were found to predict client return status after an intake interview
	Robinson	1996	Archival data collected from the University of Texas at San Antonio's counselling center.	NONE	139	There is a high initial rate of termination at the beginning of therapy which declines after a few sessions. Patterns of general termination have a subsequent increase in termination after the fifth session whereas premature termination has no subsequent increase
	Stewart	1996	Students requesting counselling at a college counselling centre in Canada	Maladjustment Scale of the MMPI-2 (Kleinmuntz, 1960, 1961) SCS (McConaughy et al, 1983; Prochaska, 1983)	60	High scores were significantly associated with high numbers of client contacts, number of scheduled appointments, frequency of contacts and number of cancellations
	Smith et al	1995	Students seeking counselling at a counselling centre	PCQ (Prochaska, DiClemente, Velicer, and Zwick, 1982) SOFAS (American Psychiatric Association, 1994)	60	Greater numbers of premature terminators entered therapy at the precontemplation stage and greater numbers of non-premature terminators entered therapy at the preparation and action stages
Zimmerman	Cooper et al	2002	Students from college counselling centres with severely stressed childhood family history	A5socation, 1994), ATQ-P (Ingram and Wisnicki, 1988); ATQ-N (Hollon and Kendall, 1980). GSE (Sherer et al, 1982); LOT (Scheier, Carver and Bridges, 1994); OQ-45 (Lambert et al, 1996); WAI (Horvath and Greenberg, 1989); FES (Alexander and Baron, 1995); CSAQ (Rowland, Zabin and Emerson, 2001); All bound together as one questionnaire	60	Improvement in psychosocial functioning was related to all three client co-variables (clients' personal psychological and cognitive resources, their level of affective and interpersonal functioning, and the therapeutic alliance between client and therapist)

Section	Authors	Date	Population	Measures	Sample	Findings
	Haas et al	2002	College student clients seeking therapy at a university counselling centre.	OQ-45 (Lambert, Hansen et al, 1996)	147	Clients with faster rates of response to psychotherapy reported lower termination OQ-45 scores at end of treatment and follow-up
	Hatchet et al	2004	College students involved in individual counselling at a university counselling centre in US	OQ-45 (Lambert et al, 1996); CISS (Endler and Parker, 1990, 1994, 1999); LOT-R (Scheier et al, 1994)	96	Higher levels of optimism were associated with better therapist ratings of improvement and remained a significant predictor after controlling for psychopathology
	Khan et al	2001	Clients who requested counselling at a student counselling centre	DDI (Kahn and Hessling, 2001); SPS (Cutrona and Russell, 1987); PANAS (Watson, Clark and Tellegen, 1988); PSS (Cohen, Kamarck and Mermelstein, 1983); BSI (Derogatis, 1993)	79	Distress disclosure was related to social support, trait positive affectivity and trait negative affectivity at intake. Distress disclosure was also associated with a decrease in client-rated stress and symptomatology over the course of counselling
	Mann	2002	Clients attending university counselling centres who indicated suicidality	SSF (Jobes et al, 1997); RFURFD (Jobes and Bonanno, 1995)	201	Findings indicated that clients with a general sense of hopefulness were more likely to resolve their suicidality during treatment
	Rice	2002	Suicidal college student outpatients from two universities seen at their university counselling centres	SSF (Jobes, Jacoby, Cimboic and Husted, 1997); PAQ (Spence, Helmreich and Stapp, 1974)	120	Clients with a high degree of 'agency' had less severe suicidality, and the greater degree to which suicidality was about the self or others, was associated with longer durations of treatment
3 Working alliance	Dyke	1996	Clients from a private, urban, university counselling centre (US)	WAI (Horvath, 1981; Horvath and Greenberg, 1986); Adult Attachment Scale (Collins and Reed, 1990); Inventory of Interpersonal Problems Shortform-Circumplex (Alden, Wiggins and Pincus, 1990); Object Representation Scale (Krohn and Mayman 1974); BIDR (Paulhus, 1984, 1988); GAF (Endicott, Spitzer, Fleiss, and Cohen, 1976)	90	There was a relationship between the therapists' but not the clients' rating of working alliance and overall functioning

Section	Authors	Date	Population	Measures	Sample	Findings
Working alliance	Scholl	1998	Undergraduate clients presenting for counselling for the first time at their respective university counselling centres College students involved in individual counselling at a university counselling centre in US	IDAI (Hood and Jackson, 1985c); MJIRI (Hood and Mines, 1986c); PEI (Rickers-Ovsiankina, Berzins, Geller and Rogers, 1971)	152	Tolerance for Diversity and Independence from Parents were negatively related to preferences for Approval. Interdependence and Independence from Peers were positively related to preferences for Audience
Efficacy	Newman and Greenway	1997	University students seeking psychological services from a university counselling service	MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen and Kaemmer, 1989); SLCS (Tafarodi and Swann, 1995); SCL-90R (Derogatis, 1983); SCI (Fenigstein, Scheier and Buss, 1975); AQ-2 (Finn, Schroeder and Tonsager, 1995)	60	Clients who were given test feedback within 2 weeks of assessment reported a significant decrease in symptomatic distress at a 2-week follow-up
	Turner et al	1996	College students who requested psychotherapy at the psychological services centre	CAS (Anton and Reed, 1991); CSQ-8 (Attkinsson and Zwick, 1982); MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen and Kaemmer, 1989)	94	No difference was found in treatment effect or client satisfaction between two treatment groups. Students reported greater adjustment after therapy independent of session length
5 – Therapist variables	Constantine	2002	Students from five college and university counselling centres in the US, who sought and terminated mental health treatment.	Client Demographic Questionnaire: unvalidated questionnaire; ATSPPHS-S (Fischer and Farina, 1995); CRF-S (Corrigan and Schmidt, 1983); CCCI-R (LaFromboise, Coleman and Hernandez, 1991); CSQ-8 (Larsen et al, 1979)	112	Clients' rating of the therapists' general competence accounted for significant variance in their satisfaction rates. The ratings of the therapists' multi-cultural competence also contributed significant variance

Section	Authors	Date	Population	Measures	Sample	Findings
II :0 III > :a.. :r: I :O	Robinson	1996	Archival data collected from the University of Texas at San Antonio's counselling centre.	NONE	139	None of the therapist variables were predictive of successful termination. Agreement between therapist and client on presenting problems were also not related to type of termination

Section	Authors	Date	Population	Measures	Sample	Findings
	Risler	2002	College students undergoing therapy at two student counselling centres	Taped open-ended interviews	9	4 major domains of therapy helpfulness emerged: therapist variables, therapeutic relationship, client variables and specific techniques

5.3.1 1 Client variables

The following part of the report is divided into three sections that examine the effect of client variables on (a) termination of therapy, (b) symptom improvement and (c) therapeutic alliance.

Termination

Six studies examined client characteristics and attrition from psychotherapy.

Robinson (1996) used archival data and survival analysis techniques (Marubini and Valsecchi, 1995) to examine the global demographic client characteristics of age, gender, ethnicity, and also income and symptom severity. None of the demographic variables were found to be predictive of a 'successful' termination, which was defined as being termination during a regular scheduled appointment. This finding is consistent with previous research carried out in student counselling services (Mennicke et al, 1988).

Longo et al (1992) applied Bandura's social cognitive theory to the prediction of client motivation for, and attrition from, student counselling. The key elements of Bandura's model comprise self-efficacy, outcome expectations and behavioural goals (which in this instance is client's intention to engage in counselling). The results indicated that both self-efficacy and outcome expectations accounted for unique variance in motivation above and beyond client gender, problem severity and therapist experience. They also found that self-efficacy and motivation were predictive of client persistence after the intake session, with self-efficacy being the primary variable discriminating between continuers and drop-outs. An interesting further finding was that although client gender did not predict attrition in itself, it did relate to motivation, which in turn was predictive of attrition.

In a study examining similar concepts, **Hatchett et al (2004)** examined whether client optimism, coping style and psychopathology were associated with termination status or the number of counselling sessions attended in a university counselling centre. They also considered the impact of psychopathology and its interaction with optimism and coping. Their argument was that these three concepts may be inter-related. Psychopathology was found to be a predictor of premature termination and number of sessions attended. Higher scores on the Outcome Questionnaire 45 (OQ-45; Lambert et al, 1996) were associated with premature termination and the completion of more counselling sessions. They initially found that lower levels of optimism were associated with premature termination. However, when they controlled for client psychopathology, this earlier finding was not statistically significant. The authors suggested, therefore, that psychopathology interacts with optimism in predicting premature termination. Coping styles were not useful in predicting number of sessions or type of termination.

Stewart (1996) examined counselling service utilisation patterns using the College Maladjustment Scale (Mt) of the Minnesota Multiphasic Personality Inventory-2 (Mt; Kleinmuntz, 1960, 1961). This is a scale which had been specifically developed to identify emotionally maladjusted post-secondary students who may require long-term or more

intensive counselling or psychotherapy. Low scores on the Mt have been found to be associated with increased optimism and conscientiousness whereas high scores indicated significant psychological problems (Graham, 1990). The main finding was that high scores on the Mt scale were positively associated with more frequent utilisation of services as well as more total contacts and more frequent cancellations. However, the Mt score failed to predict client non-return after intake for a sub-group of students with high levels of self-reported maladjustment. The study also failed to find any association between Mt scores and total length of service, number of no-shows, and number of unscheduled drop-in sessions.

Smith et al (1995) investigated premature termination from counselling by examining clients' readiness to change as reflected in the stages and processes of change model (Prochaska and DiClemente, 1982). Particular stages and processes of change had previously been found to relate to greater client readiness to change in smoking cessation, weight loss, and alcoholism (Prochaska et al, 1992). The stages of change identified in this model are pre-contemplation, contemplation, preparation, action, and maintenance. It was thought that the later the stage at which the client enters therapy the more ready they are to initiate change and therefore less likely to terminate therapy (Prochaska et al, 1992). It was found that greater numbers of premature terminators entered therapy at the pre-contemplation stage, and greater numbers of non-premature terminators entered therapy at the preparation and action stages.

The client's self-esteem and the similarity of the personality type of the client and counsellor was examined by **Berry and Sips (1991)**. Using the Myers-Briggs Type Indicator (MBTI; Myers, 1962) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965), they found that global similarity on the MBTI did not predict type of termination or number of sessions. However, the interaction of the MBTI subscale differences with self-esteem indicated that the greater the similarity between counsellor and client, and the lower the client's self-esteem, then the more likely the client was to terminate counselling prematurely. The authors explained this result by invoking the possibility of a negative evaluation of the self being projected onto the therapist; people not preferring to interact with a similar other when they judge themselves as having undesirable traits (Jellison and Ziesset, 1969; Taylor and Mettee, 1971; Novak and Lehrer, 1968)

Qualitative research on termination

Two studies used qualitative methods to determine clients' reasons for early termination. Using grounded theory methodology, **Elligson (1990)** carried out in-depth interviews with 10 clients. The main reason elicited for early termination was that clients perceived greater early progress in counselling relative to the perceived 'costs' (time/energy/resources) of attending counselling sessions as compared with clients who persisted in counselling for longer periods of time. There was a unanimous perception of having made some progress in one or two counselling sessions and a simultaneous experience of a decreased sense of a need to return to counselling. However, there was a large degree of variability amongst participants' reasons for terminating counselling, suggesting that early termination was a highly individualistic, multifaceted phenomenon. Termination was more often associated with an internal rather than external factor (eg evaluation of the counsellor), apart from the area of difficulty relating to scheduling appointments. Overall, there was almost unanimous satisfaction with the counselling experience. These findings run contrary to the commonly held view that clients terminate due to dissatisfaction with the counselling/counsellor or the view that early terminators are treatment failures (eg Robbins et al, 1985). However, there is a possible confound in that the author was a practitioner at the student counselling service so there is the possibility of some bias in the results, although this issue was acknowledged by the author.

Similar findings were reported by **April and Nicholas (1996)** who administered a questionnaire to premature terminators identified by counselling centre records. They found that 80% of clients recorded that counselling had been of benefit to them and only 18% indicated a negative experience of counselling. Three categories of intervention were identified as being the most helpful in overcoming their problem; talking to a counsellor, client decision to tackle the problem, and social support.

Symptom improvement

Six studies examined client factors and improvement from pre- to post-therapy. For the most part, symptom change is used as the measure of improvement. Studies examine symptom improvement from both the perspective of the client and the therapist ratings. Other indices examined, in addition to symptoms, include psychosocial functioning (one study), perceived stress (one study), and suicidal status (two studies)

Haas et al (2002) investigated whether those clients who responded early in therapy went on to maintain their gains. Early response was measured by determining the difference between client-rated symptom distress scores collected at each session and expected scores derived from a large study of typical treatment response. It was found that clients with faster rates of response to psychotherapy reported lower termination symptom scores at the end of therapy and, importantly, also at follow up. The ability to recognise those clients who respond early in therapy could lead to clinicians providing more targeted treatment - for example using brief therapy models with early responders.

Whether clients respond early in therapy could be related to the client's level of optimism. As well as examining whether optimism, coping style and psychopathology predicted termination (see above), Hatchett et al (2004) also considered therapist ratings of client improvement. The level of improvement was measured using a five-point Likert scale from 'no improvement' to 'substantial improvement'. It was found that higher levels of optimism as measured by the Life Orientation Test-Revised (LOT-R; Scheier et al, 1994) were associated with better therapist ratings of improvement which remained a significant predictor even after controlling for level of psychopathology.

Cooper et al (2002) examined whether client characteristics, such as optimism and hope, were related to outcome. They employed a sample of students who might be deemed 'difficult to treat' in that the student clients were characterised as coming from severely distressing family backgrounds. The authors investigated whether three client co-variables: 1) psychological and cognitive resources (eg self-efficacy, thinking patterns, daily functioning, life outlook), 2) level of affective and interpersonal functioning (perceptions, affect and behaviours related to social and interpersonal contexts), and 3) working alliance (measured using Working Alliance Inventory (WAI; Horvath and Greenberg, 1989) affected outcome with such clients. It was found that improvement in psychosocial functioning (measured using the Social and Occupational (School) Functioning Assessment Scale (SOFAS; American Psychiatric Association, 1994) was related to all three client covariates. However, the level of negative family experiences did not affect outcome, nor did whether or not the client had experienced childhood sexual abuse (as opposed to other childhood stressors).

Khan et al (2001) sought to determine whether a client's tendency to disclose or not disclose personally distressing information (as measured at pre-therapy by the Distress Disclosure Index (DOI; Kahn and Hessling, 2001), was related to improvement in perceived stress as measured by the Perceived Stress Scale (PSS; Cohen et al, 1983) and the Brief Symptom Inventory (BSI; Derogatis, 1993). They found that distress disclosure was associated with a decrease in client-rated stress and symptomatology over the course of counselling. This finding runs counter to the view that disclosure is detrimental to client improvement (Kelly, 2000). However, actual disclosure in therapy was not measured in the study. Rather, a measure determining a client's tendency to disclose was used.

Mann (2002) and Rice (2002) carried out two related studies which tracked suicidal clients through the course of therapy. Mann (2002) examined suicidal clients' stated 'reasons for living' and 'reasons for dying' while Rice (2002) examined clients' traits of agency (ie experience as an autonomous individual) and communion (ie existence as a member of society) and how these affected a client's suicidal status through therapy. In both studies, clients were retrospectively allocated to one of three outcome groups: 'Resolvers' (three consecutive sessions without suicidality); 'Drop-outs' (stopped treatment before resolving suicide status); 'Non-resolvers' (stayed in treatment and did not resolve suicidal status for three consecutive sessions) Mann (2002) found that the quality of a client's hopefulness

Turner et al (1996) examined the effect of length of sessions (50 minutes or 30 minutes) on therapy outcomes. Outcome was measured using the College Adjustment Scales (CAS; Anton and Reed, 1991) and the Client Satisfaction Questionnaire (CSQ-8; Attkinsson and Zwick, 1982). All students were better adjusted after therapy with no difference between the 50-minute and 30-minute groups. Nor was there any difference in satisfaction with therapy between the two groups.

Newman and Greenway (1997) investigated whether providing feedback to clients on test results had a therapeutic effect. The authors used the Minnesota Multiphasic Personality Inventory 2 (MMPI-2; Hathaway and McKinley, 1942) as their outcome variable. Sixty clients were randomly assigned to a feedback or delayed feedback group. Those clients who were given test feedback within two weeks of their assessment reported a significant increase in self-esteem immediately following the feedback session and a significant decrease in symptomatic distress at a two-week follow-up as compared to a control group who were given feedback after completion of the outcome measures. The results provide support for the therapeutic impact of providing verbal feedback of MMPI-2 test results. Further research needs to be carried out to determine whether client feedback using other therapist and client rated measures would be beneficial.

5.3.3 Therapist variables

Two studies examined the attributes of the therapist and their effect on outcomes. One study examined the effect of static therapist variables on termination and the other investigated the more fluid concept of competence, as rated by the client, and its impact on client satisfaction.

Robinson (1996) used archival data and survival analysis procedures to ascertain the patterns of premature termination at a university counselling centre with the aim of trying to identify related therapist characteristics (age/gender/ethnicity). None of the therapist variables were predictive of successful termination (ie termination during a regular scheduled appointment). This analysis was carried out in conjunction with client variables (see above) and agreement between therapist and client of presenting problems, neither of which were related to type of termination.

Constantine (2002) investigated the satisfaction of clients with therapy according to client ratings of therapists' general and multi-cultural competence. All clients were clients of colour who sought counselling at the centre: 46% were Black American and 26% were Latin American. It was found that clients' ratings of therapists' general competence accounted for a significant level of variance in their satisfaction rates: In addition, the ratings of therapists' multi-cultural competence contributed additional significant variance. There was considerable overlap between the two ratings with the two ratings being highly correlated (.78), suggesting that counsellors who were perceived as effective in general terms were also seen as competent at addressing multicultural issues. However, the results of the regression analysis also indicated that they were operationally distinct, with the cultural competence accounting for a higher variance in satisfaction than general counselling skills. Clients' attitudes towards counselling were also examined and found to account for significant variance in the satisfaction ratings. This attitude towards counselling was controlled for in the analysis of general and multicultural competence.

5.3.4 Counsellor-client similarity and outcome

Three studies examined the similarity between the client and therapist, and the affect this has on outcome.

Erdur et al (2003) examined outcome and retention in counselling according to the ethnic similarities and dissimilarities between therapists and clients. Using archival data comprising pre- and post-therapy OQ-45 scores and number of sessions, they found no significant differences in change scores between ethnically similar and dissimilar client/therapist dyads. Nor were there any differences in the number of sessions attended. Similar results were

obtained considering the therapist-client ethnicity combinations separately, apart from a trend for Hispanic clients to remain in therapy longer with Caucasian therapists. These results are consistent with research in adult clinical populations which suggests there appears to be very little evidence that matching the therapist and patient on static demographic variables improves the therapeutic relationship (Vaughan and Roose, 2000).

In contrast to examining similarity between client and therapist on static variables, **Tracey et al (1999)** investigated the pattern of complementarity (ie participant exhibition of behaviour desired by the other) between client and therapist and its relation to outcome. Outcome was measured using change in the Brief Symptom Inventory (BSI; Derogatis, 1983) and Target Complaints (Battle et al, 1966). Complementarity was assessed using audio recordings of therapy. From these, independent raters completed the Cognitive-Behavioural Treatment Adherence Scale (CTS; Shaw, 1984) and the Interpersonal Communication Rating Scale-Revised (ICRS-R; Strong et al, 1988). As anticipated, it was found that those clients with better outcomes showed a U-shaped pattern of complementarity that started at an initial high level, then dropped, followed by a rise again towards termination. However, the final point was lower than the initial high level. Dyads that did not show this U-shaped pattern were associated with lower outcome scores. A high level of complementarity at the beginning of therapy was reflected in the establishment of rapport, the drop in the middle was reflected by conflict of therapeutic aims, and the rise at the end of therapy indicated the initiation of change and a realistic agreement (Tracey and Sherry, 1993).

Atkinson et al (1991) sought to determine the beliefs of university counselling attendees regarding the causes of psychological problems and whether or not the similarity of beliefs between counsellors and counsellees was related to counsellor effectiveness and satisfaction. They also examined whether clients' beliefs regarding the causes of their problem (ie thinking, feeling, acting) affected their preferences for counselling orientation. Overall, irrational concerns received the most (56%) first place rankings of the causes of psychological problems. However, there was a gender difference, with women more likely to identify somatic causes of psychological problems and less likely to identify irrational thinking and social performance ($\chi^2 = 8.34, p < .05$). Overall, 'feeling orientation' was the preferred counselling orientation (65.5%). Again, there was a gender difference with men preferring the 'thinking' and 'acting' orientations ($\chi^2 = 11.04, p < .05$). All but one counsellor ranked irrational concerns as the primary cause of psychological problems and the majority (13/17) ranked 'thinking orientation' as their preferred counselling orientation. There was no relationship between the rating of counsellor effectiveness or satisfaction with therapy and the match between clients' and therapists' beliefs on the causes of problems or preferred and actual therapeutic orientation. However, it was interesting to note that males' preference for therapy orientation was 'thinking' or 'acting' whereas the orientation of the majority of therapists was 'feeling' which was congruent with the preference of females. The authors point out that this difference may go some way to understanding the under-representation of males in student counselling services.

The client's perspective

Finally, two qualitative studies investigated the subjective experience of therapy from the perspective of the client.

Risler (2002) interviewed nine students and asked what aspects of therapy they found most helpful. Tape recordings were transcribed and analysed using the *consensual qualitative* research approach which involved four judges independently analysing the data before coming to consensual conclusions. Four areas of therapy helpfulness emerged relating to therapist variables, therapeutic relationship, client variables, and techniques. Of the therapist variables elicited, *personality* was mentioned as being helpful by five to eight clients. For the therapeutic relationship, the category *joining/collaboration/meeting client where they are* was mentioned by all clients, and the categories *egalitarian, boundaries, safe haven, trust, acceptance, and feeling heard and understood* were mentioned by five to eight clients. For the domain techniques, the category *guided exploration leading to insight* was mentioned by

all and *behavioural techniques* mentioned by five to eight clients. The themes that emerged therefore included the importance of an egalitarian therapeutic relationship based on collaboration, mutuality and respect. The use of guided exploration was perceived as being helpful. This involved the therapist raising questions or making interpretations aimed at fostering insight and self discovery.

Ramsey-Wade (2005) used semi-structured interviews to explore the experience of undergoing therapy. Factors elicited that were important to outcomes included practical aspects of therapy sessions (availability, timing and frequency of appointments) as well as feeling understood and having a strong relationship with the therapist. Therapist qualities/actions such as separateness, normalising, accepting clients' experiences, listening and responding were reported by participants to be linked with change factors. Participants reported few hindering processes, the main one being lack of warmth from the therapist. Personal benefits of therapy reported included increased insight, self-acceptance and self confidence.

5.3.5 Conclusions

Research on the impact of variables on outcome in student counselling is very diverse, with little commonality between the impact factors examined. The research included in this review was characterised by reliance on archival data, lack of experimental designs (ie no control/comparison groups), and use of convenience samples (ie research not 'embedded in student literature'). In addition, the larger part of the research was conducted in the USA, limiting applicability of the findings to UK student populations.

However some conclusions may be tentatively drawn from the research as it stands. Research on static client variables in relation to student counselling populations is not warranted, given the lack of positive findings reported. Future research based on building up 'profiles' of clients more likely to have poorer working alliances with their therapist would be of significant therapeutic value. Cognitive/psychological resources seem to be an important factor, with self-efficacy, optimism and self-esteem being protective against premature termination. There was little research on therapist variables; one study looked at static variables and failed to find factors related to termination, the other study (Constantine, 2002) found that the more complex variable of multi-cultural competence was predictive of symptom improvement. The evidence regarding client-therapist matching was inconclusive (see 5.3.4). What the study on complementarity (Tracey et al, 1999) does suggest is that patterns of therapist responsiveness, that is, the therapist's flexibility in adapting to client's needs, may be a more fruitful line of research to pursue.

Table 5.2. Summary matrix of treatment therapist and client variables

Client variables	Termination	Symptom improvement	Satisfaction	Therapeutic alliance
<p>Global demographics: Age, Gender, Ethnicity, Income, Symptom Severity</p>	<p>Robinson (1996) Did not predict 'successful termination'</p>			
<p>Cognitive styles/resources Self-efficacy, Outcome expectations and behavioural goals Self-esteem Agency Client optimism, Coping style Eady response to psychotherapy</p>	<p>Longo, Lent and Brown (1992) Self-efficacy and outcome expectations predictive of motivation for counselling. Self-efficacy was the primary variable predicting attrition, discriminating between continuers and dropouts</p> <p>Hatchett and Park (2004) Low levels of optimism associated with premature termination, but when psychopathology controlled for the association failed to reach statistical significance, suggesting an interaction effect of optimism and psychopathology</p> <p>Berry and Sippes (1991) The greater the similarity in personalities between counsellor and client and the lower the self-esteem, the more likely that client was to be a premature terminator</p>	<p>Cooper et al (2002) Improvement in psychosocial functioning was positively related to psychological and cognitive resources and to social and interpersonal functioning</p> <p>Rice (2002) Clients with a greater degree of agency had less severe suicidality</p> <p>Haas et al (2002) Early responders to psychotherapy reported lower client-rated symptom scores post treatment and at follow-up</p> <p>Hatchett and Park (2004) High levels of optimism were associated with higher therapist rated levels of improvement, even after controlling for psychopathology</p> <p>Mann (2002) Clients with a general sense of hopefulness for the future (as opposed to a concrete/specific hopefulness) were more likely to resolve their suicidality during treatment</p>		

Client variables	Termination	Symptom improvement	Satisfaction	Therapeutic alliance
<p>Symptom severity/problems Stewart (1996) College maladjustment scale (Mt) of the MMPI-2. High scores indicate significant psychological problems</p>	<p>Stewart (1996) High scorers on the Mt scale engaged in more frequent utilisation of services, more contacts and more cancellations. Mt scores did not predict client non-return after intake; and no association between Mt scores and total length of service, number of DNAs and number of unscheduled drop in sessions</p>			
<p>Working capacity Readiness to change: Stages include pre-contemplation, contemplation, preparation, action and maintenance. Tendency to disclose</p>	<p>Smith, Subich and Kalodner (1995) Greater numbers of premature terminators commenced therapy at pre-contemplation stage; completers tended to commence therapy at the preparation and action stages</p>	<p>Kahn, Achter and Shambaugh (2001) Clients' tendency to disclose personally distressing information was related to symptom client-rated symptom improvement</p>		
<p>Relational styles/ characteristics Attachment styles Interpersonal problems Capacity to tolerate intimacy and closeness with others Autonomy and capacity for mature relationships</p>				<p>Dyke (1996) Client-rated alliance was positively associated with the capacity to tolerate intimacy and closeness with others and with interpersonal problems involving excessive closeness. Client-rated alliance was negatively associate with interpersonal problems involving coldness, hostility and distancing from others</p> <p>Scholl (1998) Clients with high levels of autonomy (interdependence and independence from peers) had preference for an 'audience role' in their counsellor. Clients with high levels of autonomy as evidenced by 'independence from pacent's' tended not to have a preference for an 'approval role' in their counsellor. Those showing high levels of a capacity for mature relationships (tolerance for diversity) tended not to have a preference for 'Approval' role in their counsellor, whereby the client is concerned about the impression they make to the counsellor</p>

Client variables	Termination	Symptom improvement	Satisfaction	Therapeutic alliance
Length of treatment		Turner, Valtierra, Talken, Miller, and DeAnder (1996) All students were better adjusted after therapy with no difference between the 50-minute and 30-minute group	Turner, Valtierra, Talken, Miller, and DeAnder (1996) There was no difference in satisfaction levels between the 50- and 30-minute group	
Feedback (of test results)		Newman and Greenway (1997) Clients who were given test feedback within two weeks of intake assessment reported a significant increase in self-esteem following the feedback session and a significant decrease in symptomatic distress at two-week follow-up		
Global demographics: Age, gender, ethnicity	Robinson (1996) No variables were predictive of successful termination			
Therapist general competence and multi-cultural competence			Constantine (2002) Clients' rating of the therapists' general competence and multi-cultural competence was related to satisfaction levels	
Ethnic similarity to clients	Erdur, Rude, and Baron (2003) Ethnic similarity to clients was not related to number of sessions attended	Erdur, Rude, and Baron (2003) Ethnic similarity to clients was not related to change scores on OQ-45		
Complementarity to client		Tracey, Sherry, and Albright (1999) Better outcomes were found when therapists had patterns of complementarity with clients that started at an initial high level, then dropped, then rose again toward termination		
Similarity of beliefs (regarding cause of psychological problems) to client			Atkinson et al (1991) Therapist similarity to client on beliefs was not related to satisfaction with treatment or rating of counsellor effectiveness	

SECTION 6: INTAKE SEVERITY AND ASSESSMENT

Contents

6.1	Issues and limitations
6.2	Background and context
6.3	Summary of evidence
6.3.1	Intake severity
6.3.2	Presenting problems
6.3.3	Assessment procedures

Tables

Two tables are provided

1. Summary of the research evidence
2. Normative values for pre-therapy measures of psychological distress

6.1 Issues and limitations

Very few studies have examined symptom severity of students attending student counselling services. A summary is therefore provided of those studies which have compared student counselling data with a clinical or non-clinical population. The majority of these studies, whilst providing referential normative data, compare the severity of clients attending university counselling services with students not attending counselling. For two of the studies which do provide comparisons with a clinical population, the main aim of the research was to provide student normative data, rather than to compare the severity of the two populations. Further, much of the research has been carried out in the US thus limiting the generalisability of the research evidence to a UK setting. It is for these reasons that definitive conclusions cannot be drawn regarding the relative severity of students attending counselling services. Rather, a tabled summary of the normative data is provided, (supplemented by data derived from research outlined in the section relating to the effectiveness of student counselling) providing a base from which future research into this area can develop.

Similarly, research identified concerning the assessment of presenting problems and assessment procedures is quite diverse, limiting any conclusions or synthesis.

This section therefore primarily presents the best available research evidence in the area of intake severity and assessment in the hope that it will provide a springboard for further research into this important area.

6.2 Background and context

6.2.1 Intake severity

Alongside growing concerns for the mental health of students (Royal College of Psychiatry [RCP], 2003; AUCC, 2004; Rana 1999) there is also concern for the increasing levels of mental distress experienced by those attending student counselling services. Rather than dealing with career and academic concerns, it has been argued that clients are attending student counselling services with problems of a severity more akin to those encountered in NHS mental health services. The RCP report (2003) states that due to the progressive narrowing in recent years of access to mental health services there may have been an increased tendency for students with moderate mental health problems instead to seek support from university counselling services.

Early studies have shown that a high proportion of students are attending counselling services with levels of distress indicative of a diagnosable psychiatric ailment (Johnson, 1989). These results were similar to a study conducted in the late seventies which found there to be no difference in levels of distress associated with presenting problems between students who requested personal counselling at the counselling centre and psychotherapy at a mental health service (Aniskiewicz, 1979).

The major part of the evidence supporting the perception of the worsening mental health of students attending university counselling services has been anecdotal, obtained by surveys of student counselling staff and directors. For example, in a national sample of 205 university and college counselling centre staff, Robbins (1985) obtained ratings of services' perceptions of changes in client presenting problems. Results indicated that services viewed client problems to be moving from areas requiring informational/educational inputs to areas indicative of more serious emotional/behavioural problems. Stone and Archer (1990) reported that eating disorders, substance abuse, sexual abuse and violence, dysfunctional family experiences and aids were problems that were increasingly having to be dealt with in student counselling services. A survey of directors of college and university counselling centre professionals showed a perceived increase in the levels of pathology which were viewed as resulting from changes in society, students, and counselling services (O'Malley's et al, 1990).

In a much more recent study of the US National Survey of Counseling Center Directors, it was found that 85.8% of directors believed that there had been an increase in the number of centre clients with severe psychological problems in recent years (Gallager et al, 2004). Moreover, 90.6% believed that students with significant psychological disorders were a growing concern on campus. They also reported that 41.3% of their clients had severe psychological problems and 92% of directors reported an increase in students coming to counselling who were already prescribed psychiatric medication.

A similar perception is reported amongst UK counselling services (Rana, 1999). The AUCC (2004) states that the increase in the number of sessions delivered to students is indicative of higher levels of disturbance. Their survey revealed that nearly 50% of counselling services indicate that the amount of time devoted to clients with severe mental health problems had increased over the past year, with only 2.5% indicating a decrease. The AUCC concluded that evidence pointed to a small but increasing number of student clients with significant mental health problems, with no evidence to suggest that the mental health of the vast majority of students undertaking counselling was getting worse.

6.2.2 2 Presenting problems

Over the years, there has been a developing body of evidence concerning the types of problems brought by students to counselling services. Major issues dealt with in student counselling include: relationships (families), academic, self-esteem, relationship (peers), relationships (partner), depression, anxiety related, development/personal growth, identity, loss, isolation, bereavement, stress, eating disorder, panic, sexuality, drugs/alcohol (Leeds

University Counselling Annual Report, 2003). Relationships were by far the most commonly cited problems. Family relationships were a key issue for 14% of clients. Primary peer relationships were also common issues being reported by 7% of respondents. Both academic difficulties and self esteem accounted for 8% each. However, regardless of the presenting problems, symptoms generally involved depression and anxiety (Rockwell and Talley 1985). The 2004 annual report from the AUCC indicated that the main issues presented by student clients in 2002/3 were linked to depression/mood, relationships, anxiety and academic difficulties. They also indicated that relationship problems were the most common presenting problem at 18%, followed by depression/mood disorder at 15%.

The profiling of clients' presenting problems has important implications both for the client and therapist, and for the effectiveness of the counselling service as a whole. Clients presenting with different types of problems may respond differentially to therapy or different therapeutic orientations. An accurate assessment or profile of the client's problems is therefore important to ensure that the best evidence available is utilised to maximise therapeutic outcomes. Additionally, a client's personality may also interact with problem type to affect, for example, their attitudes towards counselling, motivation and the therapeutic alliance, which ultimately have an effect on therapeutic outcomes. As such, it could be argued that personality factors should be incorporated into profiling. More 'rounded' profiles would be useful in the matching of clients to therapists to enhance client satisfaction and treatment.

A profile of client problems also has important implications for practitioner training. A shift from vocational and developmental problems to more severe psychological problems means that practitioners require training programmes to address specialised problem areas such as substance abuse, eating disorders, panic disorders, and suicide ideation in addition to mood and anxiety disorders. There is also a need for counselling centres to be able to identify boundaries for the types of problems and degrees of severity of those clients for whom the counselling centre will provide services, and to establish appropriate referral networks for those they do not (Stone, 1992). Although profiling has valuable implications for assessment and practice, it is important to acknowledge potential limitations/factors for consideration. Inaccurate/simplistic profiling could be counterproductive – therefore highly skilled assessors are needed; certain important impact factors emerge during therapy as a result of the therapeutic work/dialogue – therefore it is important for the therapist not to feel 'stymied' by any one profile. Profiling could therefore work best as a guide to practice/service provision.

6.3 Summary of research

Table 6.1: Summary of research evidence

Section	Authors	Date	Population	Measures	Sample	Findings
?	Connell and Barkham	Subm	students attending 11 university counselling centres and clients attending 33 NHS primary care counselling services (<i>groups were age matched</i>)	CORE-OM (Barkham et al, 2001)	837	No significant difference was found between primary care mental health service clients and student counselling services in the areas of general well-being, depression, anxiety, physical problems, and general day to day functioning
	Green et al	2003	Students either attending or not attending a college student counselling centre	POAMS-CCV (Kopta and Lowry, 1997)	208	Students attending counselling were significantly more distressed on all dimensions of the POAMS-CCV
	Keutzer et al	1998	Students attending a university counselling centre in the US	ICP (Hoffman and Weiss, 1986); TRF (Hoffman and Weiss, 1986)	1117	Females and students with prior counselling indicated greater subjective distress on the ICP. Students rated by therapists to be in a situational crisis or have frank psychopathology had higher ICP scores than those judged to be in a developmental crisis
	Nafziger et al	1998	Students presenting at a USA Student counselling centre and students not using the psychological services	CAS (Anton and Reed, 1991)	1214	Counselling centre clients scored significantly higher on anxiety, depression and self-esteem compared to non-client student groups
	O'Hara et al	1998	College students from an outpatient counselling centre and students not attending counselling .	(Beck et al, 1996)	152	The student counselling sample mean score on the SDI was significantly higher than the classroom sample
	Todd et al	1997	College outpatients and college non-patients at a US university-based psychology training clinic	SCL-90R (Derogatis, 1994)	209	Significant differences were found between student patient and non-patient scores on the GSI, with student patients scoring higher

Section	Authors	Date	Population	Measures	Sample	Findings
	Benton et al	2003	Archival data of therapist perceptions of clients attending a college counselling centre	Case Descriptor List (CDL); (developed by counselling centre staff)	Not available	Significant changes were identified in 14 out of 19 presenting problem areas, over a 13 year period
	Erickson-Cornish et al	2000	Students presenting at a counselling centre over a six-year period	BSI (Derogatis, 1993)	982	There was no general increase in distress over time. There was a statistically significant association between academic year and the proportion of extremely distressed clients
	Pledge et al	1998	Archival intake data on clients in student counselling, taken from CASPER (McCullough and Farrell, 1983)	Multivariate Classification Scheme (Heppner et al, 1994)	2,326	There were no significant differences found between the sample groups between the composite items identified by Heppner et al (1994)
	Untch	1997	Random sample of archival data from the intake reports of college counselling centre clients	GAF (American Psychiatric Association, 1994)	269	No increases were shown in the severity of clients presenting problems by academic year for women or men
	Dimson	2000	Volunteer clients from a university counselling centre in a large Western US university	ASPER (Farrell and McCullough, 1989); CISS (Ender and Parker, 1990); MBSS (Miller, 1987)	205	The presenting problem profiles of this sample fell into seven discrete clusters which were typified by overall psychopathology and level of substance use
	Green et al	2003	Students either attending or not attending a college student counselling centre in the US	POAMS-CCV (Kopta and Lowry, 1997)	208	Students attending counselling were significantly more likely to present with depression procrastination/ motivation, decisions about career, academic performance/ study skills, financial concerns, uncertainty about life after college, and body image concerns
	Heppner	1994	Clients who sought counselling centre services at a major public Midwestern university in the US	CASPER (McCullough and Farrell, 1983)	611	Classifying clients' presenting problems revealed two groups of clients with high generalised levels of stress, one group with situational adjustment: un-assessed concerns; two groups with somatic concerns; three groups with interpersonal concerns, and one group with chemical concerns

Section	Authors	Date	Population	Measures	Sample	Findings
	Zucker	2000	Clients attending a US university counselling centre	DES (Bernstein and Putnam, 1986); PAS (Sanders, 1986)	955	One third met the criteria for major depression. 20% reported symptoms of panic disorder. Over a third presented with suicidal ideation. A third presented with alcohol problems, 20% presented with at least one symptom related to eating disorders
	Freedy et al	2002	Students who sought counselling and psychological services at a Southeastern US medical university	Trauma Assessment for Adults (Resnick et al, 1996); BSI (Derogatis and Spencer, 1982); GSI (American Psychiatric Association, 1994)	203	Significantly higher rates of trauma exposure were found when the trauma screening questionnaire was used with prevalence rates representing between a two- and four-fold increase in the level of reported trauma
	Frey et al	2004	Students attending a university-based counselling service	OQ-45 (Lambert et al, 1994); RHI (Liang et al, 2002); FEQ (Draper et al, 2002)	382	The predictor variables were not highly correlated. The correlations between predictor variables and the outcome variable ranged from .00 to -.44
	Hayes and Mahalik	2000	Male students seeking services from a mid-Atlantic research university counselling centre	GRCS (O'Neil et al 1986); BSI (Derogatis, 1993)	99	Gender role conflict was found to be a significant predictor of psychological distress in the areas of hostility, social discomfort and obsessive-compulsiveness
	Matthews	1998	Archival data on students with problematic drinking habits, attending a university counselling centre	BSI (Derogatis, 1993); BDI (Beck et al, 1996); DSM-IV diagnosis 'clinical impressions'	1081	Only 51% of intake reports mentioned clients' use of alcohol. However 12% of the sample reported currently experiencing some mild distress and 8% (approx.) reported moderate or severe distress about their drinking
	Stinson and Hendrick	1992	Students recruited from a university counselling centre in Southwestern US.	CSEQ (not validated) (based on Wyatt, 1985)	300	Formal enquiries yielded a significantly higher rate of disclosure of childhood sexual abuse, than no formal enquiry. Sexual abuse history was present in around one third of student counselling attendees
	Wagner	1999	Archival database of student clients in a university counselling		59	Students in the abused group had a significantly greater number of presenting problems than those in the non-abused comparison group

6.3.1 Intake severity

Six studies were reviewed that provided normative data for student counselling services whilst providing comparisons of severity with other clinical or non-clinical populations. The normative data derived from these studies is summarised in the table 4.1. This data is supplemented by pre-therapy data from studies regarding the effectiveness of student counselling reported later in this section. In addition four longitudinal studies are reviewed which address the perception of increasing severity of those attending student counselling services over time.

Comparison scores on the Beck Depression Inventory-II (BDI-11; Beck et al, 1996) of a counselling centre sample with those of a student non-patient 'classroom' sample and also with normative adult outpatient data (Beck et al, 1996) is provided by **O'Hara et al (1998)**. The student counselling sample scores were significantly higher than the classroom sample. However, the student counselling sample mean score was reported as being substantially lower than the Beck et al (1996) normative adult clinical sample mean score, suggesting that clients attending student counselling services are not as distressed as adults attending public mental health services. As the main aim of this paper was to provide student normative data rather than to compare the severity of the two populations, these findings should be viewed with caution as they are not derived from a systematic attempt to test for population differences.

In a similar study using the Symptom Checklist 90R (SCL-90R; Derogatis 1994), **Todd et al (1997)** provided a comparison of the scores of college outpatients with college non-patients and adult outpatient norms (Derogatis and Cleary, 1977). Regression analysis showed that treatment status (ie outpatient or non-patient) was a significant predictor of the GS! (Global Severity Index: APA, 1994) with college outpatients scoring higher than college non-patients. The female student outpatient sample was similar to the female adult outpatient normative sample. The male student outpatients were found to be slightly less symptomatic than male adult outpatients. As in O'Hara et al (1998), the main aim of this paper was to provide student normative data rather than to compare the severity of the two populations. These findings are not derived from a systematic testing of population differences and should therefore be viewed with caution.

Nafziger et al (1998) provided normative data on the College Adjustment Scales (CAS; Anton and Reed, 1991) for a university counselling centre. They compared these with a student non-clinical sample and the CAS standardisation sample. Analyses of effect sizes revealed significant practical differences between the clinical and both non-clinical samples. The clinical sample scored higher on depression, anxiety and self-esteem, with mean T scores one standard deviation above the mean. Effect size analysis revealed there were no significant practical differences between males and females in the student clinical group apart from anxiety, where females were higher than males. Similarly, no differences were found between racial or ethnic groups.

Green et al (2003) also compared the severity of student samples either attending or not attending student counselling using the Psychotherapy Outcome Assessment and Monitoring System-College Counseling Center Version (POAMS-CCV; Kopta and Lowry, 1997). These results were then compared with normative data from community adults who were not in treatment, as well as with adult psychotherapy outpatients. Counselling centre clients were significantly more distressed on all dimensions of the POAMS than college students and adults not in treatment, and less distressed than adult outpatients.

A comparison of scores using the therapist-completed Inventory of Common Problems (ICP; Hoffman and Weiss, 1986) against demographic variables derived from clients at a US university counselling centre was carried out by **IKeutzer et al (1998)**. Therapists also completed the Therapist Rating Form (TRF; Hoffman and Weiss, 1986) to assess whether clients presented with 'underlying pathology', 'developmental issues' or 'situational problems'. The authors found that on the ICP females had higher scores (ie were more distressed) than males. Further, students with prior counselling scored significantly higher than those with no

prior counselling. Those students with 'underlying pathology' scored significantly higher than those with developmental or situational problems and undergraduates scored significantly higher than graduates. On the TRF, undergraduate students had a higher proportion of 'underlying pathology' ratings than graduates. Contrary to their hypothesis, graduate students had a higher proportion of developmental issues than undergraduates, though the difference was not significant. The authors concluded that student counselling centres encounter a broad range of problems and must have the ability to respond to pathological, developmental and situational problems.

The only study carried out in the UK, and which incorporated more than one student counselling centre, was conducted by **Connell and Barkham (submitted)**. A comparison was made between severity scores on the Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM; Barkham et al, 2001; Evans et al, 2002) for students aged 18-24 attending 11 UK university counselling centres and similarly aged clients attending NHS primary care services. There were no significant differences reported between young persons attending primary care mental health services and student counselling services. This result held for the areas of general well-being, depression, anxiety, physical problems and general day-to-day functioning. Primary care users were statistically significantly more distressed on items relating to close and social relationships, and risk to self and risk to others. However these differences were primarily a result of large sample sizes as the effect size differences were small. The authors concluded that the results indicate that students using university counselling services showed severity levels only marginally lower than people presenting to primary care mental health settings with the differences occurring in the domains of functioning and relationships rather than symptoms.

Conclusions

Where studies have compared the severity levels of students attending counselling services with a non-clinical student population, not surprisingly, in all cases those attending counselling services are significantly more distressed than those people in a non-clinical student population. When comparing severity levels of those attending student counselling services with adult mental health normative data/services there are mixed results. The studies by Connell and Barkham (submitted) using the CORE-OM and Todd et al (1997) using the SCL-90R indicate similar severity levels between the two populations. On the other hand, the severity levels of student counselling attendees were significantly lower than the normative adult outpatient sample using the BDI-II (O'Hara et al, 1998).

Is the severity of distress increasing?

Four studies addressed the issue of the increasing severity of presentation in students attending student counselling services. All of these studies were carried out at single institutions in the US and may therefore not be generalisable to the UK.

In a study examining the overall distress of students presenting at a counselling centre over a period of six years (as indicated by GSI scores on the Brief Symptom Inventory [BSI; Derogatis, 1993]), **Erickson-Cornish et al (2000)** found there to be no general increase in distress over the time period. However, there was a statistically significant association between academic year and the number of extremely distressed clients. For the first three years, the number of severely distressed was less than six but in the last two years it had almost doubled to 16 and 14 respectively.

Rather than using self report measures at intake, **Benton et al (2003)** used archival data, collected over a period of 13 years, from the perspective of the therapist at case closure. The sample was divided into three groups, two of four consecutive years and one of five. Chi square analysis showed significant changes in the percentages in 14 out of 19 problem areas. Linear trends were observed in the problem areas of developmental, situational, depression, academic skills, grief and medication use with the percentages of clients experiencing these problems increasing steadily over time. In seven of the other problem areas (relationships,

stress/anxiety, family issues, physical problems, personality disorders, suicidal thoughts and sexual assault), there was an increase in the latter two time periods compared with the first. Substance abuse, eating disorders, legal problems and chronic mental illness showed no significant change over the 13 year period. Up until 1994 relationship problems were the most cited; since that time stress/anxiety is reported more frequently. The authors examined alternative explanations for the changes over time but came to the conclusion that students seen in counselling in recent times have more complex problems.

Untch (1997) used a random sample of archival data from six selected academic years between 1979 and 1995. Using the Global Assessment of Functioning (GAF; American Psychiatric Association, 1994) as the measure of severity and the intake reports for demographics and presenting problem, it was hypothesised that the severity of depression would increase by academic year for both men and women and that the frequency and or severity of eating disorders and victimisation from sexual violence would increase for women. Multiple regression analysis revealed no increase by academic years for any of these presenting problems by frequency or severity.

A similar conclusion was drawn by **Pledge et al (1997)**. Archival data was examined over a six-year period using the data from the Computerized Assessment System for Psychotherapy Evaluation and Research (CASPER; McCullough and Farrell, 1983). A multivariate analysis of variance indicated that all the composite groups ('chemical', 'interpersonal', 'mood', 'physical', 'suicide', 'thought' and global'; Heppner et al, 1994) were similar for all the years examined. Further, no significant differences were found for individual items. The authors concluded that concerns identified by clients were constant over the six-year period but replicated the severe levels of distress identified by Heppner et al (1994). Thus the severity of the problems had not become worse but had simply stabilised at a higher level of severity than in prior decades.

Conclusions

There is little evidence to support the hypothesis of increasing severity levels of students attending counselling services over the last decade or so. Anecdotal evidence and the research conducted by Benton et al (2003) indicated an increase in severity levels for 14 out of 19 presenting problems. Notably, the work by Benton uses therapists' perceptions of severity derived from an in-house measure which has no reported validity. However, where clients' perspectives are used (eg via self report measures) or where the measure is standardised and validated (eg as in the case of the GAF), there is no evidence of increased levels of student distress.

6.3.2 Assessment of presenting problems

The four research articles considered in this section relate to the problem profiles of students attending student counselling services both from a univariate, and multivariate perspective.

Summary of Research

Green et al (2003) compared the presenting problems of student samples either attending or not attending student counselling. The two student groups demonstrated differences in patterns of presenting problems. Students attending counselling were significantly more likely to endorse the presenting problems of depression, anxiety, procrastination/motivation, decisions about career, academic performance/study skills, financial concerns, uncertainty about life after college, and body image concerns.

In a large study of clients attending a university counselling centre over a period of four years, **Zucker (2000)** found that over half the attendees presented with symptoms of depression with a third meeting the criteria for major depression. One fifth of students reported some symptoms of panic disorder with a small percentage meeting the criteria for a full diagnosis. Over a third of students presented with suicidal ideation and one third presented with alcohol problems. Additionally, one fifth reported at least one significant symptom relating to an

eating disorder. In all, over three quarters of students reported at least some childhood emotional abuse with nearly half reporting frequent emotional abuse. Just over one third reported some physical abuse with 10% reporting frequent physical abuse, and one third reported childhood sexual abuse with a small percentage reporting frequent sexual abuse.

Instead of using a univariate approach to the categorisation of presenting problems, typified by the use of problem checklists, the following two studies use a multivariate approach. The rationale for this is that such an approach provides a more complex assessment of clients presenting problems that may have implications for case disposition, interventions, and research relating to coping, help seeking, and therapeutic concerns (Heppner, 1994). The following two research studies into presenting problems make use of data from the Computerized Assessment System for Psychotherapy Evaluation and Research (CASPER; McCullough and Farrell, 1983) which is a mental health computerised system completed at client intake. As this is a system developed and used primarily in the US, the findings may be specific to that system and thus not generalisable to other studies using different systems. However, the system was developed through the content analysis of the most commonly used intake instruments including the Beck Depression Inventory (BDI), the Minnesota Multiphasic Personality Inventory (MMPI), and the Symptom Checklist-90-Revised (SCL-90R) as well as problems most frequently reported by psychiatric inpatients and outpatients (McCullough et al, 1984).

The aim of research by **Heppner (1994)** was to develop a multivariate categorisation scheme for classifying clients' presenting problems. The Ward method of cluster analysis (SPSS, 1990), using six problem categories and one global measure of distress, revealed nine clusters of clients who presented with different types of problems. Two groups of clients had high generalised levels of stress, one group had situational adjustment (unassessed concerns), two groups had somatic concerns, three groups had interpersonal concerns, and one group had substance misuse concerns. Heppner (1994) also found that the sample means and the proportion of clients found in various clusters suggested that clients attending the counselling centre had serious problems. This was corroborated by the fact that one third of students reported suicidal thoughts as occurring on one or more days in the last month.

As an extension of the work by Heppner (1994), **Dimson (2000)** sought to provide typical profiles of counselling centre clients with respect to their presenting problems and then to relate these to coping styles as measured by the Coping Inventory for Stressful Situations (CISS; Endler and Parker, 1990). The stated rationale was that the recognition of a particular coping profile might aid the clinician in diagnosing certain problems, thereby leading to more appropriate interventions. The profiles of this sample with regard to presenting problems only fell into seven discrete clusters which tended to be typified by level of overall psychopathology and level of substance use, which the author suggested might be the most useful way of classifying student counselling attendees. These differed from the classification scheme developed by Heppner (1994) which found that the majority of the clusters were defined by one type of problem. In a further cluster analysis the profiles of this sample with regard to presenting problems and coping styles fell into nine discrete clusters. The author suggested that this finer level of discrimination might enable the therapist to provide more individualised treatment according to coping style when there is little discrimination with regard to presenting problems.

6.3.3 Assessment Procedures

The following six articles relate to the importance of the assessment procedures in the examination of factors affecting or contributing to the distress of students attending counselling services. The studies are diverse and consider the areas of social support, exposure to trauma, childhood abuse, alcohol use and gender role.

Using a relational-cultural model, **Frey et al (2004)** examined the relationship between social support and psychological distress of those attending student counselling. They found that for women, higher scores on peer and community relational health predicted lower psychological

distress whereas only community relational health was a predictor for men. Family concerns or conflicts were also predictors for males and females and number of years in school was a predictor for women only. The authors stressed the importance of assessing the relational quality of students' social support systems. They suggested that effective counselling interventions for college men might involve facilitating increased competency with intimate peer relationships. By contrast, counselling interventions for women may involve facilitating intimate relationships within the university community. It is also suggested that strategies are developed to facilitate mentoring relationships.

Freedy et al (2002) examined the effect of adding trauma screening to standard intake measures by comparing counselees who completed a brief written questionnaire concerning lifetime exposure to traumatic events, with those who did not complete such a measure. They also looked at the association between trauma and distress. They found significantly higher rates of trauma exposure when the trauma-screening questionnaire was used with prevalence rates representing between a two- and four-fold increase in the level of reported trauma. They also found that past victimisation and trauma exposure was related to clinically significant levels of psychological distress, particularly physical assault.

In a similar study, **Stinson and Hendrick (1992)** examined the rates of disclosure of childhood sexual abuse according to the mode of enquiry. They found that when clients were directly asked, either by being given a self-report measure or being asked by the therapist, they yielded rates of disclosure that were significantly higher than when no formal enquiry was made. Using this methodology, it was found that sexual abuse was part of the history of approximately one third of university counselling attendees.

Higher levels of distress for those students with a history of abuse were identified by **Wagner (1999)**. It was found that clients with a reported history of abuse as compared to a random sample of those with no abuse history presented with a higher number of presenting problems, attended more therapy sessions, had a greater need for counselling and had a poorer assessment.

The importance of assessing alcohol use is addressed by **Matthews et al (1998)**. They sought to determine the extent of potentially problematic alcohol use and the intake counsellor's response to it. Archive data was used to identify those students with problematic drinking habits (as identified by their response to standard intake questions). On examination of the intake counsellor's report (comprising a structured interview using intake measures as a guide, DSM-IV diagnosis + 'clinical impressions') they found that almost half of the intake reports did not mention the client's use of alcohol. The authors recommended that information to help identify problematic drinking should be made readily available and used by counselling staff. In addition, they recommended that counsellors routinely inquire about patterns of student alcohol use.

Finally, the importance of identifying gender role conflict in male students attending counselling is addressed by **Hayes and Mahalik (2000)**. Their results indicated that gender role conflict predicted significantly greater psychological distress in the areas of hostility, social discomfort and obsessive-compulsiveness. The authors stated that their findings reflected the complex influence that gender role conflict factors may have on college men who seek psychological help. They suggest that clinicians need to attend carefully to this issue by examining and deconstructing learned gender roles.

Table 6.2: Normative values for pre-therapy measures of psychological distress

Reference	Population	Measure	N	Male (SD)	Female (SD)	Total Mean (SD)
O'Hara et al, 1998	College counselling centre, USA	Beck Depression Inventory II (BDI-11)	152	14.0 (9.5)	15.8 (11.6)	15.3 (11.0)
Todd et al, 1997	University psychology clinic, USA	Symptom Check List 90R (SCL-90R)	209	0.9 (0.6)	1.3 (0.6)	
#Rickinson, 1997	Undergraduates university counselling service	Symptom Check List 90R (SCL-90R)	43	-	-	1.25 (0.60)
#Michel et al 2003	University-based counselling clinic	Symptom Check List 90R (SCL-90R)	35	-	-	0.96 (0.63)
#Vonk and Thyer, 1999	University counselling centre	Symptom Check List 90R (SCL-90R)	41	-	-	0.96 (0.63)
Nafziger et al, 1998	University counselling centre, USA	College Adjustment Scales - Depression* (CAS)	1214	-	-	25.6 (8.2)
	University counselling centre, USA	College Adjustment Scales - Anxiety* (CAS)	1214	-	-	29.5 (8.0)
Keutzer et al, 1998	University counselling centre, USA	Inventory of Common Problems (ICP)	1069	2.3 (-)	2.5 (-)	2.4 (-)
Connell and Barkham, 2005	11 university counselling centres, UK	Clinical Outcomes in Routine Evaluation (CORE-OM)	1109	20.3 (6.8)	21.0 (6.6)	21.4** (6.4)
Green et al, 2003	College counselling centre, USA	Psychotherapy Outcome Assessment and Monitoring System-College Counseling Center Version (POAMS-CCV)	208	-	-	2.72
Michel et al, 2003	University-based counselling clinic	Hamilton Depression Scale	35	-	-	9.20 (4.50)
		Hamilton Anxiety Scale	35	-	-	8.20 (4.15)
		Social Adjustment Scale	35	-	-	2.11 (0.45)

* The overall scores for the CAS were not included in the paper, thus the scores for anxiety and depression are given here

** Mean clinical score (mean score x 10) # Data from reviewed evidence in 'Section 4: Effectiveness of Student Counselling'

6.4 Conclusions

Six studies were identified which provided normative data for student counselling services and/or compared the severity of those attending student counselling services with a

comparative sample(s). All but one of these were US studies, leading to problems with applicability of these results to UK populations. Four longitudinal studies were identified which examined increasing severity of student health over time. The Only study that found evidence of worsening student health was one which relied on therapist perceptions on an unvalidated measure (Benton et al, 2003), therefore suggesting that increases in student distress are more apparent than real. However, these results were all based in US single institutions, again leading to problems of generalisability .

Research on presenting problems suggests that multivariate classification schemes offer finer, more discriminative profiling of clients. Six studies were identified which were concerned with assessment procedures and examination of factors impacting on distress levels of students attending counselling services. The following emerged as salient, clinically useful components of assessment programs: 1) Social Support Systems 2) Trauma Screening 3) Alcohol Use 4) Gender Role Conflict



SECTION 7: DISCUSSION AND RECOMMENDATIONS

7.1 Counselling effectiveness

7.1.1 Current research

Most of the effectiveness studies reviewed in this report are concerned with short-term therapy. So in terms of content area, the research reviewed in this report is highly relevant to current practice and service provision within student counselling.

However, the major part of the research has limited use and applicability due to the following characteristics: uncontrolled pre-post designs, controlled studies with non-equivalent control groups, and poor reporting including lack of summary data. In addition, a substantial proportion of the research derives from unpublished dissertations and theses, which have not been through the same rigorous quality control procedures as published articles in peer-reviewed journals.

7.1.2 2 Psychodynamic therapy

Two studies have shown short-term psychodynamic therapy to be effective within student counselling populations, although the design of the studies limits confidence in the findings. One study used an uncontrolled pre-post design (Michel et al, 2003) and the other a non-equivalent control group design (Rickinson, 1997). Given the reality of practice research where use of a no-treatment control group is sometimes unfeasible or problematic for both patients and practitioners, strategies need to be in place for maximising the yield from research that can be carried out. The use of non-equivalent control group designs employing a non-clinical normative sample as the control group is not appropriate. A possible option, where waiting lists are a feature of a service employing short-term interventions, is to randomise clients to a wait-list deferred treatment group.

– It is our recommendation that more effort be placed on reconciling the need for better quality research designs with the reality of practice-based research. UK practice research networks offer models of how this can be done (see Audin et al, 2001).

*Where non-equivalent group designs are used, statistical controls need to be built into the analyses to take account of the non-equivalence in baseline severity of symptoms.

There was one long-term study of psychodynamic therapy identified in this review (Pahkinen and Cabble, 1990). The results were positive, but basic descriptive data was not provided, meaning estimates of the magnitude of the change could not be calculated.

– It is our recommendation that certain standards need to be adhered to in the reporting of research, a primary one being adequate reporting of basic descriptive data that would enable the calculation of effect sizes.

7.1.3 Short-term routine therapy

Short-term routine therapy pertains to treatment which is routinely provided by the counselling service in which counselling or psychotherapy is not defined. The problem with such undefined routine treatments is that it makes comparison across services problematic. Three of the five studies investigating the effectiveness of short-term routine therapy found positive effects (Destefano et al, 2001; Vonk and Thyer, 1999; Wilson et al, 1997). Wilson et al (1997) also found that students receiving counselling were less likely to drop out of university relative to non-counselled students. However, all of these studies employed a non-equivalent groups design, the limitations of which have been discussed previously (section 7.1.2). The fourth study (Turner et al, 1996) used adjustment to college and satisfaction with therapy to establish the differential

effectiveness of 30-minute and 50-minute therapy sessions. All students reported being better adjusted after therapy with no difference between groups. However, this study did not employ a control group, meaning that the effectiveness of the therapy sessions cannot be directly inferred.

One UK study (Surtees et al, 1998) used an uncontrolled pre-post design and found that only 25 per cent of those people seen for counselling achieved a favourable clinical outcome while 50 per cent achieved a non-favourable clinical outcome. No post-treatment data was available for this study, meaning that there was no indication of whether therapy had resulted in gains at post treatment which were not maintained through to follow-up. The absence of post-treatment data also makes it difficult to determine to what extent symptoms were recurrent or episodic.

7.1.4 Crisis intervention

Only one study (Nelson, 2003) evaluated crisis intervention services. Crisis intervention was shown to be useful in that those students who received crisis intervention services were no more likely to drop out of university than those students not requesting crisis intervention services. Given that non-retention rates in universities have considerable cost implications for both the individual student and society, it is important to determine whether such interventions would be useful in UK student populations.

– It is our recommendation that future research be commissioned investigating the effectiveness of crisis intervention services, across a range of outcomes.

7.1.5 Non practice-based evidence

Only four non practice-based studies were identified. Cognitive therapy was found to be effective in reducing test anxiety (Carter et al, 1999; Ergene, 2003) and unresolved traumatic experiences (Segal and Murray, 1994). Individual counselling rather than group counselling was found to be the more effective mode of delivery in reducing test anxiety (Evans, 2003). However, the results of all these studies are complicated by factors related to sampling: students were not recruited from student counselling. However, causal inferences between intervention and outcome are more easily inferred due to the high quality of the research designs. In addition it should be pointed out that although the reviewed evidence indicates that individual counselling is more effective, group therapy forms of treatment can be more cost effective and efficient – a highly relevant factor in terms of service planning.

7.1.6 Summary

Due to the quality of the research designs currently being used we have not been able to come to any definitive conclusions on the effectiveness of the interventions identified in this review. Although any observed findings should be treated with caution, the interventions currently being practised should continue to be researched using appropriate research designs that could feasibly be carried out in practice settings. Examples are single-case methodologies and routine evaluations of clinical outcomes. The latter often employ single-group repeated measurement designs and benchmarking techniques.

7.2 Therapeutic process

7.2.1 Current research

Research on the impact of variables on outcome in student counselling is very diverse, with little commonality between the impact factors examined. As a result, it is difficult to apply any kind of synthesis to the present review. This mirrors the state of research on factors predicting patient outcome in primary care and psychological therapies: Bower (2000) observed that the lack of commonality in factors examined, the analyses used or the statistics reported made any kind of quantitative summary problematic and that attempts at a full review would 'be little more than a summary of each individual study'.

– It is therefore our recommendation that future research could examine 'clusters' of factors

affecting outcome which have been shown to be predictive of outcome in the research reviewed here (see below). This would help to build up a more co-ordinated evidence base, which might then permit more definitive conclusions to be drawn.

The reviewed research represented the best quality research available in student counselling. However, the quality was still too low to permit any definitive statement to be made on the importance of impact factors on outcome in student populations. The research included in this review was characterised by reliance on archival data, lack of experimental designs (ie no appropriate control/comparison groups), and use of samples of convenience (ie research not 'embedded' in student literature). In addition, the larger part of the research was conducted in the US, thereby limiting applicability of the findings to UK student populations.

It is our recommendation that more high quality UK research be commissioned that is specific to student populations.

7.2.2 Client variables

Static/simple variables such as global demographics (age/gender) were found not to be predictive of outcome (Robinson, 1997). As this concurs with the literature on client variables, demographic variables and outcome (see Bergen and Garfield, 2003), this would suggest that future research on static client variables in relation to student counselling populations would not be warranted.

It is our recommendation that future research examining factors affecting outcome should not measure static factors alone but rather in combination with other more complex client variables. Although demographic variables may be less important in themselves, they can be an indicator of other related issues.

Of the research reviewed here, only two studies examined the effect of client variables on alliance. Evidence has shown that working alliance can affect treatment outcome. Specifically, it can mediate the effects of client variables on outcome (Hardy et al, 2001). It would therefore be productive to continue to invest in research that determined which factors either strengthened or caused ruptures in the alliance. One study (Dyke, 1996) found that the client's capacity for closeness was the most important factor in the formation of the therapeutic alliance, while the other study (Scholl, 1998) found that the construct of young adult identity (linked with themes of autonomy, interdependence, tolerance) had implications for the client's preferred role in their counsellor and therefore the development of the alliance. Although the present evidence base is not extensive enough to draw firm conclusions, future research based on building up 'profiles' of clients who are more likely to have poorer working alliances with their therapist would be of significant therapeutic value. Therapists could be advised of such clients at intake and pre-empt potential ruptures in the therapeutic alliance by being appropriately responsive.

Termination is an important negative outcome of therapy. Clients not receiving the scheduled/arranged 'dose' of sessions are likely to have poorer outcomes (eg Barkham, Rees, Shapiro, Stiles, Agnew, Halstead et al, 1996; Cahill, Barkham, Hardy, Rees, Shapiro, Stiles et al, 2003; Howard, Kopta, Krause and Orlinsky, 1986). Cognitive/psychological resources seem to be an important factor, with self-efficacy, optimism and self-esteem being protective against premature termination.

It is therefore our recommendation that future research on client factors in relation to termination should aim to build up profiles of the type of client more likely to drop out of therapy so that therapists could be appropriately responsive to their needs.

7.2.3 Therapist variables

There is little research on therapist variables. The present review identified only two studies. The first looked at static demographic variables (Robinson, 1997). None of the therapist variables was predictive of termination, thereby supporting the general trend in the literature

on non-student adult populations (see Bergen and Garfield, 2004).

- It is therefore our recommendation that future research should not focus on static therapist variables.

The other study (Constantine, 2002) found that a more complex therapist variable, termed multi-cultural competence, was more predictive of symptom improvement than general competence. There are important implications for therapist training in relation to working with student populations with multiple/diverse ethnic groups.

- It is our recommendation that future research should see if this important finding is replicated in student UK populations, using appropriate, high quality research designs.

7.2.4 Client-therapist matching

The evidence regarding client-therapist matching is inconclusive, reflecting the trend in the literature on adult non-student populations (Bergen and Garfield, 2004). Three studies were conducted examining the similarity between the client and therapist and the impact this had on outcome. One study examined the effect of a static demographic variable, ethnic similarity between client and therapist on retention and outcome in counselling (Erdur, 2003). There was no evidence offering support for ethnic similarity as an impact factor. Another study examined the effect of a more complex matching between client and therapist (Atkinson et al, 1991). The study investigated the similarity of beliefs regarding the causes of a client's psychological problems and the way this impacted on rating of counsellor effectiveness and satisfaction with therapy. No evidence was found to support the effect of this type of matching on outcome. The remaining study (Tracey et al, 1999) did find an association with therapist-client complementarity and outcome, although the finding that this was a U-shaped pattern (an initial high level, followed by a drop, followed by a rise toward termination) suggested that it is the responsiveness of the therapist that could be the impacting factor rather than complementarity per se. Overall, there is not enough research evidence to support continued efforts into research on client-therapist matching variables.

- It is our recommendation that research exploring patterns of responsiveness from the therapist would offer a greater yield.

7.2.5 Treatment variables

Only two studies examined the impact of treatment variables on outcome. Turner et al (1996) found that session length (50 or 30 minutes) had no effect on outcome. This finding is important for service providers in terms of treatment planning and allocation of resources. Studies replicating this finding in UK student populations are advised, as are studies investigating the optimum number of sessions, a factor not examined in the present review. The second study, Newman and Greenway (1997), offered support for the therapeutic impact of providing verbal feedback to clients on test results.

- It is our recommendation that the evidence base concerning the effect of providing feedback to clients be extended by commissioning research carried out with UK populations, using high-quality research designs (ie control or comparison group) and other client and therapist completed measures.

7.2.6 Summary

Due to the diversity of the research reviewed on therapeutic process, we have only been able to comment on potentially interesting or promising findings and called for them to be replicated in UK student populations using appropriate research designs. This means that we have not been able to make recommendations for policy at government or service level. Future research needs to be more co-ordinated, more focused in the breadth of area covered, and raised in terms of methodological quality before such conclusions or recommendations can be drawn up.

Responsiveness to clients' needs seems to be an emerging theme and as this concept has significant support in the literature on psychotherapy (Stiles, Honos-Webb and Surko, 1998), it might be profitable to focus on responsiveness patterns rather than targeting more static or complex client/therapist variables which are, in themselves, difficult to operationalise. Specifically, responsiveness is a useful concept for explaining inconsistent or null findings in research on variables affecting outcome. For example if a therapist is appropriately responsive to client interpersonal problems, then the effect of interpersonal problems on outcome will be attenuated – see Hardy et al (1998) for an explanation of this phenomenon.

7.3 Intake symptom severity and presenting problems

7.3.1 Current research

The major part of the research is US based, leading to problems of generalisability. The quality of the research is also compromised by use of archival data from single institutions and non-validated measures. However, we highlight salient findings and make recommendations for future research in UK populations. We address symptom severity, presenting problems in student counselling populations and assessment procedures used in counselling centres.

7.3.2 Intake symptom severity

Six studies were identified which provided normative data for student counselling services and/or compared the severity of those attending student counselling services with a comparative sample(s). All but one of these studies were carried out in the US.

- It is therefore our recommendation that more UK studies providing normative data for student counselling services should be commissioned, since US research evidence may not be generalisable to UK student populations.

The one UK study (Connell and Barkham, 2005) was the only one to utilise data from more than one student counselling centre.

- It is therefore our recommendation that future studies providing normative data should aim to aggregate data across counselling centres to enhance generalisability of findings across service populations.

Four longitudinal studies were identified which examined increasing severity of student health over time. All of these studies were carried out in the US in single institutions, thereby raising questions about the applicability of findings to students attending UK counselling services. The only study that found evidence of worsening student health was one that relied on therapist perceptions using measures which had not been validated (Benton et al, 2003).

- It is our recommendation that UK research using prospective research designs (rather than archival data) on self-report validated measures should be commissioned.

In addition, to elicit whether the severity of distress is actually increasing in student counselling services, pre-therapy baseline data is required on measures of distress.

- It is our recommendation that outcome measures are routinely administered pre- and post-counselling and that such measures have some or all of the following properties:
 - 1) Measures which have been validated on student samples (eg BDI-II, Sprinkle et al, 2002; BSI, Hayes et al, 1997).
 - 2) Measures which are sensitive to change (eg CORE-OM, Evans et al 2002; OQ-45, Vermeersch, 2004).
 - 3) Measures which have appropriate norms for student settings (eg CORE-OM, Connell et al, submitted; SCL-90, Todd et al, 1997; BDI-11, O'Hara et al 2002).
 - 3) Measures which have proven acceptability to practitioners (ie resources acquired to administer the instrument) and clients (eg time taken to complete the instrument, refusal rates reading/comprehension level).
 - 4) Low cost (eg CORE-OM, copy-left status).

7.3.3 Presenting problems

Four studies were identified which examined the typology and frequency of presenting problems. One of these (Heppner, 1994) introduced a multivariate classification scheme to provide a more complex and accurate assessment with nine clusters of clients being identified and each defined by one type of problem. In an extension of Heppner's (1994) work, Dimson (2000) also related profiles of presenting problems to coping styles. It was found that the nine discrete clusters were each defined by level of overall psychopathology and level of substance use, suggesting a finer level of discrimination.

- It is our recommendation that future research efforts should continue to build on such multivariate classification schemes (as opposed to more simplistic univariate approaches) to enable more accurate profiles of clients, which would enable practitioners to provide more individualised tailored treatment plans.

7.3.4 Assessment procedures

Six studies were identified which focused on assessment procedures and the examination of factors impacting on distress levels of students attending counselling services. These studies demonstrated an observed relationship between psychological distress and impacting factors around the themes of social support, trauma and alcohol intake.

- It is our recommendation that given the limited evidence, the following components should begin to be piloted in standard assessment programs used in counselling centres: (1) social support systems, (2) trauma screening, (3) alcohol use and (4) gender role conflict.

7.3.5 Summary

The research reviewed above is primarily limited by applicability to US rather than UK populations. However, there are some important findings that should be replicated in UK populations. The one UK study reviewed using normative data (Connell and Barkham, 2005) offers a model of aggregating data from multiple institutions and routinely administering measures pre-therapy, a model that could be used to good effect in future UK research. Multivariate classification schemes have been shown to be useful for categorising presenting problems in US populations so we would call for this method to be used for 'profiling' students in UK populations. Given the observed relationship of impacting factors (social support, trauma, alcohol use) on distress levels, standard assessment procedures should be an essential clinical and therapeutic component of interventions in counselling centres.

7.4 Final comments

The area of student counselling and its associated evidence base is poorly positioned at a time when the ability to present a robust evidence base for counselling activities and interventions is becoming increasingly paramount. Even though there are strong government initiatives that will push up student numbers and incorporate a broader spectrum of students, the activity of student counselling does not have a sufficiently integrated place within the wider context of mental health services. The activity is probably viewed as tangential to central mental health services in that it is responsive to a population with a relatively narrow age span. Similarly, in the UK there is no academic journal dedicated to the student population although some journals view this population as being within their remit (eg British Journal of Guidance and Counselling). In the context of finite resources and increasing demands for an evidence base, there is a strong argument for co-ordinating a UK national study of routine student counselling using common measurement. Such a study could then be used to shape best practice and raise the national profile of student counselling services and the associated research activities within these settings. As a complement to a large-scale routine measurement study we would also recommend high-quality experimental research on outcomes of student counselling. We would envisage that such research utilise pragmatic trials which balances internal and external validity.

SECTION 8: RESEARCH ARTICLES

8.1 Articles included in review

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Elligson AG. (1990) Early premature termination from a university counseling center: a qualitative research study. *PsycINFO data base (UMI No 9028269)*.

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Appendix A: Search strategies for electronic databases

Australian Education Index

("PEER COUNSELLING ") OR 1 term(s): ("STUDENT COUNSELLING ") OR 1 term(s): ("NONDIRECTIVE COUNSELLING ") OR 1 term(s): ("INDIVIDUAL COUNSELLING ") OR 1 term(s): ("GROUP COUNSELLING ") OR 1 term(s): AEI Subject Headings=("COUNSELLING TECHNIQUES") OR 1 term(s): AEI Subject Headings=("COUNSELLING EFFECTIVENESS ") OR 1 term(s): AEI Subject Headings=("COUNSELLING SERVICES ") OR 1 term(s) ("COCOUNSELLING") AND (1 term(s): ("HIGHER EDUCATION") OR 1 term(s): ("TAFE COLLEGES ") OR 1 term(s): ("SMALL COLLEGES ") OR 1 term(s): ("SINGLE SEX COLLEGES ") OR 1 term(s): ("PRIVATE COLLEGES ") OR 1 term(s): ("MULTICAMPUS COLLEGES ") OR 1 term(s): ("COLLEGES OF ADVANCED EDUCATION ") OR 1 term(s): ("CHURCH RELATED COLLEGES ") OR 1 term(s): ("AGRICULTURAL COLLEGES ") OR 1 term(s): ("COLLEGES ") OR 1 term(s): ("GRADUATE STUDY") OR 1 term(s): ("SCHOOLS OF EDUCATION") OR 1 term(s): ("OPEN UNIVERSITIES ") OR 1 term(s): ("MEDICAL SCHOOLS ") OR 1 term(s): ("LIBRARY SCHOOLS ") OR 1 term(s): ("LAW SCHOOLS ") OR 1 term(s): ("DENTAL SCHOOLS ") OR Q-P-ZZ=("COLLEGE STUDENTS") OR (Q-P-00=("ABORIGINAL STUDENTS" OR "ADULT STUDENTS" OR "ADVANCED STUDENTS" OR "BILINGUAL STUDENTS" OR "BLACK STUDENTS" OR "COLLEGE STUDENTS" OR "COMMUTING STUDENTS" OR "DAY STUDENTS" OR "EVENING STUDENTS" OR "FIRST YEAR STUDENTS" OR "FOREIGN STUDENTS" OR "FULL TIME STUDENTS" OR "GRADUATE STUDENTS" OR "HIGH RISK STUDENTS" OR "INTERSTATE STUDENTS" OR "MARRIED STUDENTS" OR "MEDICAL STUDENTS" OR "MIDDLE CLASS STUDENTS" OR "NONTRADITIONAL STUDENTS" OR "PART TIME STUDENTS" OR "PREGNANT STUDENTS" OR "SELF SUPPORTING STUDENTS" OR "SINGLE STUDENTS" OR "STUDENT TEACHERS" OR "TRANSFER STUDENTS" OR "UNDERGRADUATE STUDENTS" OR "UNIVERSITY STUDENTS" OR "WHITE STUDENTS" OR "WORKING CLASS STUDENTS" OR "STUDENT ADJUSTMENT" OR "STUDENT ALIENATION" OR "STUDENT EXPERIENCE" OR "STUDENT NEEDS" OR "STUDENT PROBLEMS")) OR (Q-P-ZZ=("COLLEGES OF TECHNOLOGY" OR "ABORIGINAL COLLEGES" OR "AGRICULTURAL COLLEGES" OR "BUSINESS COLLEGES" OR "CHURCH COLLEGES" OR "CHURCH RELATED COLLEGES ")) OR (Q-P-00=("AGRICULTURAL COLLEGES " OR "CHURCH RELATED COLLEGES" OR "COLLEGES OF ADVANCED EDUCATION" OR "COMMUNITY COLLEGES" OR "MULTICAMPUS COLLEGES" OR "PRIVATE COLLEGE" OR "SINGLE SEX COLLEGES" OR "SMALL COLLEGES" OR "TAFE COLLEGES")) OR (Q-P-ZZ=("COLLEGES")) OR (Q-P-00=("HIGHER EDUCATION INSTITUTIONS" OR "DENTAL SCHOOLS" OR "LAW SCHOOLS" OR "LIBRARY SCHOOLS" OR "MEDICAL SCHOOLS" OR "OPEN UNIVERSITIES" OR "SCHOOLS OF EDUCATION" OR "FIRST YEAR STUDENTS")) OR (Q-P-ZZ=("UNIVERSITIES")) OR (Q-P-00=("GRADUATE STUDY" OR "POSTDOCTORAL EDUCATION" OR "UNDERGRADUATE STUDY" OR "BACHELORS DEGREES" OR "DOCTORAL PROGRAMS")) OR (Q-P-ZZ=("HIGHER EDUCATION ")))

British Education Index

Q-P-ZZ=("STUDENT NURSES") OR (Q-P-ZZ=("POLYTECHNIC STUDENTS")) OR (Q-P-ZZ=("COLLEGE STUDENTS ")) OR (Q-P-ZZ=("UNIVERSITY STUDENTS ")) OR (Q-P-ZZ=("POSTGRADUATE STUDENTS ")) OR (Q-P-ZZ=("UNDERGRADUATE STUDENTS ")) OR (Q-P-ZZ=("POSTGRADUATES ")) OR (Q-P-ZZ=("UNDERGRADUATES ")) OR (Q-P-00=("ADULT STUDENTS" OR "BILINGUAL STUDENTS" OR "BLACK STUDENTS" OR "COLLEGE STUDENTS" OR "DENTAL STUDENTS" OR "FULL TIME STUDENTS" OR "FURTHER EDUCATION STUDENTS" OR "LOWER CLASS STUDENTS" OR "MATURE STUDENTS" OR "MEDICAL STUDENTS" OR "MIDDLE CLASS STUDENTS" OR "OVERSEAS STUDENTS" OR "PART TIME STUDENTS" OR "POLYTECHNIC STUDENTS" OR "PREGNANT STUDENTS" OR "REENTRY STUDENTS" OR "SELF SUPPORTING STUDENTS" OR "TRANSFER STUDENTS" OR "UNDERGRADUATE STUDENTS" OR "UNIVERSITY STUDENTS")) OR (Q-P-ZZ=("STUDENTS")) OR (Q-P-00=("DENTAL SCHOOLS ")) OR (Q-P-ZZ=("MEDICAL SCHOOLS")) OR (Q-P-00=("AGRICULTURAL COLLEGES" OR "ART

22. MeSH descriptor Counseling, this term only in MeSH products
23. MeSH descriptor Behavior Therapy explode all trees in MeSH products
24. MeSH descriptor Crisis Intervention, this term only in MeSH products
25. MeSH descriptor Gestalt Therapy, this term only in MeSH products
26. MeSH descriptor Nondirective Therapy explode all trees in MeSH products
27. MeSH descriptor Psychoanalytic Therapy explode all trees in MeSH products
28. . MeSH descriptor Psychotherapeutic Processes explode all trees in MeSH products
29. MeSH descriptor Psychotherapy, Brief, this term only in MeSH products
30. MeSH descriptor Psychotherapy, Multiple, this term only in MeSH products
31. MeSH descriptor Psychotherapy, Rational-Emotive, this term only in MeSH products
32. mental health NEXT (service* or facilit* or support*) in All Fields in all products
33. student* health NEXT (service* or facilit* or support*) in All Fields in all products
34. counsel* in All Fields in all products
35. (universit* or college*) NEXT health NEXT (service* or facilit* or support*) in All Fields in all products
36. MeSH descriptor Psychotherapy, Group, this term only in MeSH products
37. (#20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36)
38. (#19 AND #37)
39. school* in All Fields in all products
40. (medical or dental) NEXT school* in Record Title in all products
41. (#39 AND NOT (#39 AND #40))
42. (#38 AND NOT #41)

NB: *=Truncation

Embase (OVID)

1. . mental health
service/ 2. mental health
center/
3. counseling/ or directive counseling/ or marital therapy/
4. psychotherapy/ or art therapy/ or assertive training/ or autogenic training/ or behavior
modification/ or cognitive therapy/ or music therapy/ or psychodrama/ or relaxation training/
or role playing/ or sex therapy/ or sociotherapy/
5. behavior therapy/
6. crisis intervention/
7. gestalt therapy/
8. psychoanalysis/
9. Group Therapy/ or Support Group/
10. (mental health adj (service\$ or facilit\$ or support\$)).mp. [mp=title, abstract, subject
headings, drug trade name, original title, device manufacturer, drug manufacturer name]
11. (student\$ health adj (service\$ or facilit\$ or support\$)).mp . [mp=title, abstract, subject
headings, drug trade name, original title, device manufacturer, drug manufacturer name]
12. counsel\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device
manufacturer, drug manufacturer name]
13. ((universit\$ or college\$) adj health adj (service\$ or facilit\$ or support\$)).mp. [mp=title,
abstract, subject headings, drug trade name, original title, device manufacturer, drug
manufacturer name]
14. psychotherap\$.mp. [mp=title, abstract, subject headings, drug trade name, original title,
device manufacturer, drug manufacturer name]
15. or/1-14
16. student/
17. college student/
18. Medical Student/
19. student\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device
manufacturer, drug manufacturer name]
20. . freshm#n mp. [mp=title, abstract, subject headings, drug trade name, original title, device

- manufacturer, drug manufacturer name]
21. sophomore\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 22. undergraduate\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 23. postgraduate\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 24. collegiate\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 25. fresher\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 26. . university/
 27. college/
 28. Postgraduate Education/
 29. Continuing Education/
 30. vocational education/
 31. . universit\$.ti,ab.
 32. . campus/
 33. . campus\$.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 34. college\$.ti,ab.
 35. polytechnic\$.ti,ab.
 36. higher education.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 37. . further education.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 38. continuing education.mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 39. ((academic or education\$) adj (institution\$ or environment\$)).mp. [mp=title, abstract, subject headings, drug trade name, original title, device manufacturer, drug manufacturer name]
 40. or/16-39
 41. 15 and 40
 42. limit 41 to human
 43. limit 42 to english language
 44. limit 43 to yr= 1990 - 2005
 45. limit 44 to (embryo or infant or child or preschool child <1 to 6 years> or school child <7 to 12 years> or adolescent <13 to 17 years>)
 46. . limit 44 to (adult <18 to 64 years> or aged <65+ years>)
 47. 45 not (45 and 46)
 48. 44 not 47
 49. school\$.ti.
 50. ((medical or dental) adj school\$).ti.
 51. 49 not (49 and 50)
 52. 48 not 51
 53. (student\$ or freshm#n or sophomore\$ or undergraduate\$ or postgraduate\$ or collegiate\$ or fresher\$ or universit\$ or college\$).ti.
 54. 52 and 53

NB: Performed on OVID software

/=Subject heading

\$=Truncation

ti.=Title

ab.=Abstract

adj.=Next to

mp.=Key word

ERIC

((DE==(Psychotherapy or "Gestalt Therapy" or "Milieu Therapy" or "Rational Emotive Therapy" or "Reality Therapy" or "Relaxation Training" or "Transactional Analysis" or "Art Therapy" or Bibliotherapy or Catharsis or "Clinical Psychology" or "Cognitive Restructuring" or "Counseling Psychology" or "Crisis Intervention" or "Dance Therapy" or "Group Therapy" or Hypnosis or "Music Therapy" or "Occupational Therapy" or "Psychiatric Services" or Psychiatry or "Psychological Services" or Rehabilitation or "Self Congruence" or "Therapeutic Environment" or "Therapeutic Recreation")) or (((de==(counseling or (adult counseling) or (career counseling) or cocounseling or (educational counseling) or (academic advising) or (admissions counseling) or (family counseling) or (group counseling) or (individual counseling) or (marriage counseling) or (nondirective counseling) or (parent counseling) or (peer counseling) or (rehabilitation counseling) or (school counseling)) or de==(adult counseling) or de==cocounseling or de==(educational counseling) or (academic advising) or (admissions counseling)) or de==(group counseling) or de==(individual counseling) or de==(nondirective counseling) or de==(peer counseling) or de==(school counseling) or de==(comprehensive guidance) or de==(counseling effectiveness) or de==(counseling objectives) or de==(counseling psychology) or de==(counseling services) or de==(counseling techniques) or de==(counseling theories) or de==(counselor client relationship) or de==(counselor supervision) or de==(counselors or (adjustment counselors) or (employment counselors) or (school counselors)) or de==(guidance centers) or (career centers)) or de==(helping relationship) or de==microcounseling)))) and ((DE=("Higher Education" or "Graduate Study" or "Graduate Medical Education" or "Postsecondary Education as a Field of Study" or "Postdoctoral Education" or "Undergraduate Study")) or (DE="Undergraduate Study") or (DE=("College Students" or "College Freshmen" or "College Juniors" or "College Seniors" or "College Sophomores" or "College Transfer Students" or "Reverse Transfer Students" or "First Generation College Students" or "Graduate Students" or "Dental Students" or "Law Students" or "Medical Students" or "Graduate Medical Students" or "In State Students" or "On Campus Students" or "Out of State Students" or "Preservice Teachers" or "Student Teachers" or "Resident Assistants" or "Two Year College Students" or "Undergraduate Students" or "Premedical Students")) or (DE=("Universities" or "Land Grant Universities" or "Open Universities" or "Research Universities" or "State Universities" or "Urban Universities")) or (DE=("Colleges" or "Agricultural Colleges" or "Black Colleges" or "Church Related Colleges" or "Cluster Colleges" or "Commuter Colleges" or "Dental Schools" or "Developing Institutions" or "Experimental Colleges" or "Law Schools" or "Library Schools" or "Medical Schools" or "Multicampus Colleges" or "Noncampus Colleges" or "Private Colleges" or "Public Colleges" or "Community Colleges" or "State Colleges" or "State Universities" or "Residential Colleges" or "Selective Colleges" or "Single Sex Colleges" or "Small Colleges" or "Two Year Colleges" or "Community Colleges" or "Technical Institutes" or "Universities" or "Land Grant Universities" or "Open Universities" or "Research Universities" or "State Universities" or "Urban Universities" or "Upper Division Colleges")) or (DE=("Nursing Students" or "Part Time Students" or "Pregnant Students"))))

NB: DE=Descriptor

Medline {OVID}

1. exp Students/
2. student\$.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
3. freshm#n.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
4. sophomore\$.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
5. undergraduate\$.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
6. postgraduate\$.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
7. collegiate\$.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
8. fresher\$.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
9. Universities/
10. campus\$.mp. [mp==title, original title, abstract, name of substance, mesh subject heading]
11. universit\$.ti,ab.

12. college\$.ti,ab .
13. polytechnic\$.ti,ab.
14. higher education.mp.
15. further education.mp.
16. exp Education, Continuing/
17. continuing education .mp. [mp=title, original title, abstract, name of substance, mesh subject heading]
18. ((academic or education\$) adj (institution\$ or environment\$)).mp . [mp=title, original title, abstract, name of substance, mesh subject heading]
19. or/1-18
20. Mental Health Services/
21. Student Health Services/
22. Counseling/
23. exp Behavior Therapy/
24. Crisis Intervention/
25. Gestalt Therapy/
26. Nondirective Therapy/
27. exp Psychoanalytic Therapy/
28. exp psychotherapeutic processes/
29. Psychotherapy, Brief/
30. Psychotherapy, Multiple/
31. . Psychotherapy, Rational-Emotive/
32. (mental health adj (service\$ or facilit\$ or support\$)).mp. [mp=title, original title, abstract, name of substance, mesh subject heading]
33. (student\$ health adj (service\$ or facilit\$ or support\$)).mp . [mp=title, original title, abstract, name of substance, mesh subject heading]
34. counsel\$.mp. [mp=title, original title, abstract, name of substance, mesh subject heading]
35. ((universit\$ or college\$) adj health adj (service\$ or facilit\$ or support\$)).mp. [mp=title, original title, abstract, name of substance, mesh subject heading]
36. Psychotherapy, Group/
37. or/20-36
38. 19 and 37
39. limit 38 to human
40. limit 39 to english language
- 41 . limit 40 to yr=l 980-2005
42. . limit 41 to ("all infant (birth to 23 months)" or "all child (0 to 18 years)" or "newborn infant (birth to 1 month)" or "infant (1 to 23 months)" or "preschool child (2 to 5 years)" or "child (6 to 12 years)")
43. limit 41 to ("all adult (19 plus years)" or "adolescent (13 to 18 years)" or "adult (19 to 44 years)" or "middle age (45 to 64 years)" or "middle aged (45 plus years)" or "aging (65 to 79 years)" or "all aged (65 and over)" or "aged (80 and over)")
44. 42 not (42 and 43)
45. 41 not 44
46. school\$.ti.
47. ((medical or dental) adj school\$).ti.
48. 46 not (46 and 47)
49. 45 not 48
50. (student\$ or freshm#n or sophomore\$ or undergraduate\$ or postgraduate\$ or collegiate\$ or fresher\$).ti.
51. 49 and 50

NB: Performed on OVID software

/=Subject heading

\$=Truncation

ti.=Title

ab.=Abstract

adj.=Next to

mp.=Key word

PsycINFO (OVID)

1. mental health services/
2. student personnel services/
3. mental health personnel/
4. counseling/
5. exp .crisis intervention/
6. gestalt therapy/
7. client centered therapy/
8. (mental health adj (service\$ or facilit\$ or support\$)).mp. [mp=title, abstract, subject headings, table of contents, key concepts]
9. . (student health adj (service\$ or facilit\$ or support\$)).mp . [mp=title, abstract, subject headings, table of contents, key concepts]
10. counsel\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]
11. ((universit\$ or college\$) adj health adj (service\$ or facilit\$ or support\$)).mp. [mp=title, abstract, subject headings, table of contents, key concepts]
12. psychotherap\$.mp . [mp=title, abstract, subject headings, table of contents, key concepts]
13. behavior therapy/
14. cognitive behavior therapy/
15. psychoanalysis/
16. psychotherapeutic counseling/
17. counseling psychology/
18. support groups/
19. psychotherapeutic outcomes/
20. psychotherapeutic processes/
21. psychotherapeutic techniques/
22. psychotherapy/ or adolescent psychotherapy/ or analytical psychotherapy/ or brief psychotherapy/ or eclectic psychotherapy/ or existential therapy/ or experiential psychotherapy/ or expressive psychotherapy/ or group psychotherapy/ or humanistic psychotherapy/ or individual psychotherapy/ or insight therapy/ or integrative psychotherapy/ or interpersonal psychotherapy/ or persuasion therapy/ or psychodynamic psychotherapy/ or rational emotive behavior therapy/ or reality therapy/ or relationship therapy/ or supportive psychotherapy/ or transactional analysis/
23. cognitive therapy/
24. exp help seeking behavior/
25. or/1-24
26. STUDENTS/
27. business students/
28. college students/
29. community college students/
30. education students/
31. junior college students/
32. nursing students/
33. dental students/
34. foreign students/
35. graduate students/
36. high school students/
37. law students/
38. medical students/
39. postgraduate students/
40. reentry students/
41. special education students/
42. transfer students/
43. vocational school students/
44. student\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]
45. freshm#n.m.p. [mp=title, abstract, subject headings, table of contents, key concepts]
46. sophomore\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]
47. undergraduate\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]

48. postgraduate\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]
 49. collegiate\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]
 50. fresher\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]
 51. colleges/
 52. college environment/
 53. higher education/
 54. graduate education/
 55. undergraduate education/
 56. graduate schools/
 57. universit\$.ti,ab.
 58. campus\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts]
 59. college\$.ti,ab .
 60. polytechnic\$.ti,ab.
 61. higher education.m.p. [mp=title, abstract, subject headings, table of contents, key concepts]
 62. further education .mp. [mp=title, abstract, subject headings, table of contents, key concepts]
 63. continuing education/
 64. continuing education.m.p. [mp=title, abstract, subject headings, table of contents, key concepts]
 65. . (academic adj (institution\$ or environment\$)).mp. [mp=title, abstract, subject headings, table of contents, key concepts]
 66. or/26-65
 67. 25 and 66
 68. limit 67 to human
 69. limit 68 to english language
 70. limit 69 to yr=1980 - 2005
 71. . limit 70 to (100 childhood or 120 neonatal or 140 infancy or 160 preschool age or 180 school age or 200 adolescence)
 72. limit 70 to (" 300 adulthood " or 320 young adulthood or 340 thirties or 360 middle age or " 380 aged " or " 390 very old ")
 73. 71 not (71 and 72)
 74. 70 not 73
 75. school\$.ti.
 76. ((medical or dental) adj schoo1\$).ti.
 77. 75 not (75 and 76)
 78. 74 not 77
 79. (student\$ or freshm#n or sophomore\$ or undergraduate\$ or postgraduate\$ or collegiate\$ or fresher\$) .ti.
 80. 78 and 79
- NB: Performed on OVID software
 /= Subject heading
 \$= Truncation symbol
 mp=key word
 ti= Title
 ab= Abstract

Sociological Abstracts

((DE=(" Higher Education " or " Doctoral Programs " or " Masters Programs " or " Postdoctoral Programs " or " Undergraduate Programs "))) or (DE=(" Higher Education " or " Doctoral Programs " or " Masters Programs " or " Postdoctoral Programs " or " Undergraduate Programs "))) or (DE=(" Colleges " or " Black Colleges " or " Community Colleges " or " Graduate Schools " or " Medical Schools " or " Polytechnic Schools " or " Universities "))) or (DE=(Students or " College Students " or " Foreign Students " or " Married Students "))) or (DE=(" Medical Students " or " Medical Schools "))) or

(DE=" Graduate Students " or " Doctoral Degrees " or " Doctoral Programs " or " Masters Degrees " or " Masters Programs " or " Postdoctoral Programs ") or (DE=" Undergraduate Students " or " Undergraduate Programs ")) and ((DE=" Psychotherapy ") or (DE=" Gestalt Psychology ") or (DE=" Sociotherapy ") or (DE=" Group Therapy " or Hypnosis)) or (DE=(Counseling or " Helping Behavior ")) or (DE=" Practitioner Patient Relationship ") or (DE=(Psychiatry or " Social Psychiatry ")) or (DE=" Treatment Outcomes "))

NB:DE= Descriptor

Proquest Dissertations and Theses, SIGLE and Zetoc

The above search strategies were translated and performed on Proquest Dissertations and Theses, SIGLE (limited access Demo version), and Zetoc data bases.

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Appendix B: Quality rating sheets.

Downs and Black Rating Sheet

REPORTING Yes = 1 No = 0

Question		Instructions*
Is the hypothesis/aim/objectives of the study clearly described	D	
2 Are the main outcomes to be measured clearly described in the Introduction or Methods section?	D	<i>If the main outcomes are first mentioned in the Results section, the question should be answered No</i>
3 Are the characteristics of the patients included in the study clearly described?	D	<i>In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case control studies, a case definition and the source for controls should be given. Emphasis should be on inclusion and exclusion criteria, other characteristics are age/gender/morbidity</i>
4 Are the interventions of interest clearly described?	D	<i>Treatments and placebo (where relevant) that are to be compared should be clearly described</i>
5 Are the distributions of principal confounders in each group of subjects to be compared clearly described?	D	<i>A list of principal confounders is provided. Morbidity, co-morbidity, age, gender, previous history. Good quality will include adjustment regression or matching</i>
6 Are the main findings of the study clearly described?	D	<i>Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. This question does not cover statistical tests which are considered below</i>
7 Does the study provide estimates of the random variability in the data for the main outcomes?	D	<i>In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error; standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered Yes</i>
8 Have all the important adverse events that may be a consequence of the intervention been reported?	D	<i>This should be answered Yes if the study demonstrates that there was a comprehensive attempt to measure adverse events (a list of adverse events is provided). Eg Early discontinuation of therapy</i>

REPORTING Yes = 1 No = 0

Question	Instructions*
9 Have the characteristics of patients lost to follow-up been described?	D <i>This should be answered Yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered No where a study does not report the number of patients lost to follow-up. Follow-up = post therapy, or loss from study at baseline</i>
10 Have actual probability values been reported (eg 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.01	D

EXTERNAL VALIDITY Yes = 1 No = 0 Unable to determine = 0

Question	Instructions *
11 Were the subjects asked to participate in the study representative of the entire population from which they were recruited?	D D UTDO <i>The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as Unable to determine. Entire population = all attending student counselling</i>
12 Were those subjects who were prepared to participate representative of the entire population from which they were recruited?	D D UTDO <i>The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population</i>
13 Were the staff, places, facilities where the patients were treated representative of the treatment the majority of patients receive?	D D UTDO <i>For the question to be answered Yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered No if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals most of the source population would attend</i>

INTERNAL RELIABILITY Yes = 1 No = 0 Unable to determine = 0

Question	Instructions*
14 Was an attempt made to blind study subjects to the intervention they have received?	D For studies where the patients would have no way of knowing which intervention they received, this should be answered Yes. Score Yes if subjects blind to study aims UTDO
15 Was an attempt made to blind those measuring the main outcomes of the intervention?	D Is there an attempt to de-couple measurement from intervention? UTDO
16 If any of the results of the study were based on 'data dredging', was this made clear?	D Any analysis that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analysis was reported, then answer Yes UTDO
17 In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case control studies, is the time period between the intervention and outcome the same for cases and controls?	B Where follow up was the same for all the study patients, the answer should be Yes. If different lengths of follow-up were adjusted for by, for example, survival analysis, the answer should be Yes. Studies where differences in follow-up are ignored should be answered No UTDO
18 Were the statistical tests used to assess the main outcomes appropriate?	D The statistical techniques used must be appropriate to the data. For example, non parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken, but where there is no evidence of bias, the question should be answered Yes. If the distribution of the data (normal or not) is not described, it must be assumed that the estimates used were appropriate and the question should be answered Yes UTDO
19 Was the compliance with the intervention/s (study/survey) reliable?	D Where there was non compliance with the allocated treatment or where there was contamination of one group, the question should be answered No. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered Yes UTDO
20 Were the main outcome measures used accurate (valid and reliable)?	D For studies where the outcome measures are clearly described, the question should be answered Yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered Yes UTDO

INTERNAL RELIABILITY CONFOUNDING (SELECTION) BIAS **Yes = 1 No = 0**
Unable to determine = 0

Question	Instructions*
<p>21 Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case control studies) recruited from the same population?</p>	<p>D <i>For example, patients for all comparison groups should be selected from the same hospital. The question should be answered</i> UTDO <i>Unable to determine for cohort and case control studies where there is no information concerning the source of patients included in the study</i> Where no control group, score 0</p>
<p>22 Were the study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case control studies recruited over the same period of time?</p>	<p>D <i>For a study which does not specify the time period over which patients were recruited, the question should be answered</i> UTDO <i>Unable to determine</i> Where no control group, score 0</p>
<p>23 Were study subjects randomised to intervention groups?</p>	<p>D <i>Studies which state that subjects were randomised should be answered</i> UTDO <i>Yes, except where the method of randomisation would not ensure random allocation. For example, alternate allocation would score No because it is predictable.</i> Where no control group, score 0</p>
<p>24 Was the randomised intervention assignment (or study procedures) concealed from both patients and health care staff until recruitment was complete and irrevocable?</p>	<p>B UTDO</p>
<p>25 Was there adequate adjustment for confounding in the analysis from which the main findings were drawn?</p>	<p>D <i>This question should be answered</i> UTDO <i>No for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of confounders differed between the treatment groups but was not taken into account in the analyses. In non randomised studies if the effect of the main confounders was not investigated, or confounding was demonstrated but no adjustment was made in the final analyses, the question should be answered</i> No</p>
<p>26 Were losses of patients to follow-up taken into account?</p>	<p>D <i>If the numbers of patients lost to follow-up are not reported, the question should be answered</i> UTDO <i>as Unable to determine. If the proportion of lost to follow-up was too small to affect the main findings, the question should be answered</i> Yes.</p>

INTERNAL RELIABILITY CONFOUNDING (SELECTION) BIAS Yes = 1 No = 0
 Unable to determine = 0

Question

Instructions*

27 Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%?

D
D
 UTDO

Sample sizes have been calculated to detect a difference of x_0/o and y_0/a . Has power analysis been performed?

	Size of smallest intervention group	
A	<n1	0
B	n1-n2	1
C	n3-n4	2
D	n5-n6	3
E	n7-n8	4
F	NS+	5

*Instructions highlighted in bold relate to further instructions not included on Downs and Black Rating Sheet

Downs SH, Black N. (1998) The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of Epidemiological Community Health*. 52: 377-384.

Qualitative Evaluation

Critical appraisal skills programme (CASP) 10 questions to help you make sense of qualitative research ©Milton Keynes Primary Care Trust 2002. For full version see <http://www.phru.nhs.uk/casp/>. *Pass/fail column added for the purposes of the current study.

Allocated paper number:

Paper evaluated:

Evaluator: Anna Madill

Appraisal questions	Comments	*P/F
<u>Screening</u> : Was there a clear statement of the aims of the research?		
<u>Screening</u> : Is a qualitative methodology appropriate?		
Was the research design appropriate to address the aims of the research?		
Was the recruitment strategy appropriate to the aims of the research?		
Were the data collected in a way that addressed the research issue?		
Has the relationship between researcher and participants been adequately considered?		
Have ethical issues been taken into consideration?		
Was the data analysis sufficiently rigorous?		
Is there a clear statement of findings?		
How valuable is the research?		
	Total passes out of 10	

Quality Rating Sheet developed for current review

Rater _____ Date _____ ID _____

REPORTING

Question		Instructions*
Are the hypothesis /aim/objectives of the study clearly described	D	<i>The aims of the study should be clearly stated, giving an explanation of why the study was carried out. Clearly stated and tightly focused aims suggest that the research hypothesis was more probably specified in advance. Wide ranging or woolly aims suggest that many different issues were being pursued to see what popped up</i>
2 Are the characteristics of the patients included in the study clearly described?	D	<i>Basic characteristics of the subjects, relevant to the research topic, should be given, including inclusion and exclusion criteria. If there are two groups, characteristics of both should be provided</i>
3 Has the method of data collection been adequately described?	D	<i>How and when the data was obtained should be included</i>
4 Are the statistical methods described?	D	<i>The statistical methods used should be described in the methods section and be referenced</i>
5 Are the main findings of the study clearly described?	D	<i>Simple outcome data should be reported for all major findings so that the reader can check the major analysis and conclusions</i>
6 Is statistical significance assessed and actual probability values reported (eg 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.01?	D	
7 Have the limitations of the research been addressed in the discussion section?	D	

EXTERNAL VALIDITY

Question

- 8 Were the subjects asked to participate in the study representative of the entire population from which they were recruited?

D
D
UTDO

Instructions*

The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as Unable to determine

- 9 Were those subjects who were prepared to participate representative of the entire population from which they were recruited?

D
D
UTDO

The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population

INTERNAL VALIDITY

Question

- 10 Has the sample size been justified?

D
D
UTDO

Instructions*

Has a power analysis been carried out? In case studies, has the use of a limited number of subjects been justified?

- 12 Did any untoward event occur during the study?

D
D
UTDO

Look out for any change of design – is data collected before the change compatible with that collected after? Is all the data available for the majority of subjects? Is there lots of missing data – has it been justified?

- 13 Do the numbers add up?

D
D
UTDO

The number of subjects in all tables should add up to the value stated in the methods or beginning of the results section. Inconsistencies should be explained. Small discrepancies should not effect the results (1%) but large discrepancies should ring bells

- 14 Were the statistical tests used to assess the main outcomes appropriate?

D
D
UTDO

The statistical techniques used must be appropriate to the data. For example, non parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken, but where there is no evidence of bias, the question should be answered Yes. If the distribution of the data (normal or not) is not described, it must be assumed that the estimates used were appropriate and the question should be answered Yes

INTERNAL VALIDITY

Question		Instructions*
15 Were the main measures/instruments used valid and reliable?	D D UTDO	<i>For studies where the measures are clearly described, the question should be answered Yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered Yes</i>
16 Is there any evidence of data dredging?	D D UTDO	<i>Any analysis not planned at the outset should be clearly indicated. If no retrospective unplanned subgroup analysis was reported, then answer Yes</i>
17 Have any important results/effects been overlooked?	D D UTDO	<i>Have any interesting results or null findings ignored? This may indicate that they do no fit or contradict their views: been</i>
18 Are the findings/ conclusions justified by the results?	D D UTDO	<i>Have the results been affected by biases and confounding? Are there any major flaws in the method of data collection? Do the findings make sense, are they plausible?</i>

Appendix C: Summaries of research evidence

Authors: April D, Nicholas LJ. Year: 1996

Title: Premature termination of counselling at a university counselling centre

Aims:

To investigate premature termination of counselling

Participants:

20 terminator clients from a university counselling service. 25% male, 75% female. Mean age 23.5, range 18-32. Average number of counselling sessions 3.6, range 1-12

Practitioners and training:

Not specified

intervention and control:

No intervention and no control group

Measures:

A semi-structured questionnaire was developed. Included were questions on demographics; problem severity in key areas; structured and open-ended questions on the counselling experience and the reasons for premature termination of counselling.

Method:

Questionnaires were sent to the premature terminators identified from the counselling centre records. Participants returned their questionnaires by post.

Findings:

Reason for not attending the last session: 32% indicated counselling was not needed any more, 27% indicated academic demands, and 18% indicated a negative experience of counselling. 80% of clients reported counselling had been of benefit to them, 20% reported no benefit. The benefits of counselling were thematically categorised into gained relief, being able to talk to someone, enhance problem, heightened self-appraisal. 95% responded affirmatively to the items regarding their attitude on future use of, and recommending a friend to, the counselling centre. Three categories were identified for what was most helpful for the clients in overcoming their problem: talking to a counsellor, client decisions to tackle the problem, and social support.

Comments:

The study used only students who terminated therapy during one semester, and this short time span was not justified. 48 questionnaires were initially distributed, although the selection of these clients is not justified. The response rate was 42% (20 questionnaires were returned). Although this response rate is low, the literature cited suggests that it is normal. The method and procedures for conducting the analysis are not reported. The results section is brief – broad statements are made with associated percentages. However one cannot conclude the accuracy of these statements since little data is given.

Authors: Atkinson DR, Worthington RL, Dana DM, Good GE.

Year: 1991

Title: Etiology beliefs, preferences for counselling orientations, and counselling effectiveness

Aims:

1a To identify the beliefs that clients have about the causes of psychological problems and to identify preferences for counselling orientation

1b To determine if these beliefs/preferences are related to each other and to the sex of the client

2 To determine if similarity of beliefs about the causes of psychological problems between the client and counsellor is related to counselling process and outcome

Participants:

232 clients (male 19%, female 80%) from a university counselling service in the US. Mean age 21.87, range 17-42. Ethnicity: White American 85%, Latino American 6%, Asian American 2%, American Indian 1%, Black American 0.5%, Other 2%, not specified 3%. Data was collected over two academic quarters. Participants were those seeking a counsellor for

the first time or who had an appointment with a counsellor they had not seen before

Practitioners and training:

17 counsellors (6 men, 11 women) with a mean age of 39.71, range 24-59 years. Counselling experience ranged from .5-32 years, with a mean of 10 years

Intervention and control:

No control group. The intervention was counselling provided at the centre (unspecified)

Measures:

Initial client questionnaire: three sections: demographics, client rating of six causes of psychological problems, and client ranking of preference for counselling orientation.

Follow-up questionnaire: consisted of the Counsellor Effectiveness Rating Scale (CERS; Atkinson and Wampold, 1982); number of sessions attended and rating of satisfaction with counselling on three items; ranking the causes of psychological problems and preferences for counsellor orientation; indication of counsellor's orientation.

Counsellor questionnaire: demographics; ranking of causes of psychological problems; ranking of counselling orientation.

Method:

The questionnaires for parts 1 and 2 were provided to the clients immediately before intake interview, and clients were asked to return part A as soon as possible to the receptionist. Part 2 data was collected at the conclusion of the 3rd or final session. Clients who had participated in part 1 were handed the questionnaires to complete, or if the client had dropped out, the questionnaires were mailed to them three weeks after their last session.

Findings:

For clients, the order in which the causes of psychological problems were ranked is: irrational concerns, job difficulties, physical illness, lack of social awareness, biological imbalances, bad luck. Their ranked preferred counselling orientation was: feeling, thinking, acting. The causes of psychological problems were not related to preferred counselling orientation ($p > .05$). There was a sex difference ($p < .05$), with women more likely to identify somatic causes of psychological problems and feeling orientation, and men more likely to identify irrational thinking and social inadequacies as causes, and thinking and acting orientations as preferred. There was no significant effect for client/therapist belief match/belief mismatch ($p = 0.15$); for the CERS rating ($p = 0.12$); or belief match/belief mismatch x CERS rating ($p = 0.07$). There was no significant effect of preferred-orientation match/mismatch ($p = 0.95$); for CERS ratings ($p = 0.15$); or preferred orientation match/mismatch x CERS ratings ($p = 0.91$). There was no significant relationship between belief match/mismatch or preferred orientation and satisfaction with counselling, satisfaction with counselling orientation used, or feeling understood was non-significant ($p > 0.5$). Perceived-belief similarity was found to be a significant predictor of total CERS credibility, satisfaction with counselling, satisfaction with counselling orientation, and feeling understood. Sex similarity was a significant predictor of satisfaction with counselling orientation used.

Comments:

Response rate for part 1 is 65%. The response rate for part 2 is 30%. The clients who participated in part 2 were found to be older and more likely to be women. The test-retest reliabilities of the etiology beliefs and preferred counselling-orientation items is only modest (.31-.77). Clients were only seen for an average of three sessions before completing part 2, so counsellor influence may have only been modest due to this brief number of sessions.

Authors: Benton SA, Robertson JM, Tseng WC, Newton FB, Benton SL.

Year: 2003

Title: Changes in counselling centre client problems across 13 years

Aims:

To examine trends in counselling centre clients' problems from the perspective of the therapist at the time of therapy termination using archival data across 13 years

Participants:

13,257 clients from a university counselling service in the US. 36% were male, 64% female. 75% of clients under 25 years

Practitioners and training:

12 full-time staff. 11 had PhDs, 1 had a masters. Also, 3/4 pre-doctoral psychology interns

Intervention and control:

N/A

Measures:

Case Descriptor List (CDL); developed by counselling centre staff. Consists of 30 questions answered by clinicians at case closure. Inter-rater reliability was .91.

Method:

Archival data was split into three groups spanning roughly four years each, from 1988 to 2001. Chi-square analysis was conducted to ascertain changes across the three time periods.

Findings:

Across the three time periods, the percentage of students experiencing the following problems increased steadily: developmental; situational; depression; academic skills; grief; and medication use. In the areas of relationships, stress/anxiety, family issues, physical problems, personality disorders, suicidal thoughts, and sexual assault, the percentage of students experiencing these problems was higher in the second two time periods than in the first. Prior to 1994, relationship problems were the most frequently reported; from 1994, the most common problem was stress/anxiety. Educational/vocational problems were more prevalent in the first than second time period, and then increased again in the third. Abuse, however, increased from the first to second time period, then dropped off in the third. No significant changes were observed for substance abuse, eating disorders, legal problems or chronic mental disorders.

Overall, in recent times, the presenting problems of students have become more complicated, comprising a range of normal student problems (eg relational/developmental) and also more severe problems such as personality disorders. For example, the number of students with depression doubled over the time period, the number of suicidal students tripled, and the number seen after a sexual assault quadrupled.

Comments:

That the CDL requires responses in the form of yes/no rather than on a Likert scale is a weakness. Despite high inter-rater reliability, past research has shown that therapists' diagnostic impressions are frequently inaccurate and inconsistent. However, the CDL is not a diagnostic tool but an indicator of the problems that were the focus of therapy. Limitations: the study examined problems from the perspective of the therapist only, at termination, and at a single counselling centre.

Authors: Berry WG, Sipps GJ.**Year:** 1991**Title:** Interactive effects of counsellor-client similarity and client self-esteem on termination type and number of sessions**Aims:**

To investigate the hypothesis that the interaction of self-esteem and counsellor-client similarity of MBTI (Myers-Briggs Type Indicator) scores would be a better predictor of termination type and number of sessions than would similarity alone

Participants:

35 female and 20 male clients from a university counselling centre at a USA medium-sized urban campus with a diverse student body. Subjects ranged from 18-50 years, mean age 23.28, SD 7.45. Because of counselling centre policy, the sample was limited to full-time students

Practitioners and training:

Four female and five male counsellors who agreed to participate. Six were full-time staff at the counselling centre and three were pre-doctoral interns. Counsellors used a variety of orientations

Intervention and control:

No control group. Intervention consisted of counselling (therapists used a variety of orientations). Counselling centre policy was not limited: mean number of sessions was 5.3, mode 3.0

Measures:

Myers-Briggs Type Indicator (MBTI; Myers, 1962): a 166-item forced choice, self-report questionnaire used to assess personality according to Jungian typology. It consists of four

scales: introversion-extraversion (1-E), sensation-intuition (S-N), thinking-feeling (T-F) and judging-perceiving (J-P).

Rosenberg Self-Esteem Scale (RSE)(Rosenberg, 1965): The RSE is a 10-item Guttman scale that asks subjects whether they agree strongly, agree, disagree or disagree strongly with the items, which are arranged in the order in which they are scored. Each item is scored on the basis of the person's response being consistent with high self-esteem. Items are grouped into six categories yielding a score ranging from 0-6.

Method:

Clients were randomly assigned to counsellors through daily rotating intake duty. Toward the end of the initial interview the counsellor invited the client to participate by giving him/her a one-page letter from the researcher. The form also requested some demographic information. If the client consented to participate he or she was scheduled to take the RSE and MBTI at the university counselling centre before the next session. Instruments were administered by testing-centre staff; code numbers were used to ensure anonymity. Type of termination (mutual or unilateral) and number of sessions was recorded by the counselling centre office staff. Counsellors completed the MBTI at their convenience during the data collection period.

findings:

Dependent variables were the number of sessions and type of termination (unilateral or mutual). Similarity was assessed by the global difference scores on the MBTI, and self-esteem by the Rosenberg Self-Esteem Scale. Stepwise multiple regression analyses indicated that self-esteem interacted significantly with similarity on four of the five MBTI scales to predict type of termination ($p < .05$), indicating that the greater the similarity between counsellor and client, and the lower the client's self esteem, the more likely the client terminated prematurely.

Findings for number of sessions were non-significant.

Comments:

Major weaknesses are the lack of reporting on how the sample was selected. The study is vulnerable to selection bias due to the fact that information on the number of clients who declined to participate (and their characteristics) is not available. Also, the sample size is too small. According to Green (1991) the number of cases for testing multiple correlations is 'N should be greater than or equal to $50 + 8m$ (m is the number of lvs) for testing the multiple correlation, and N should be greater or equal to $104 + m$ for testing individual predictors'. For both tests, the number of cases for the study falls short. A possible confounding factor concerns the way that MBTI scores were made available to the counsellors for interpretation. It is not stated when this occurred in therapy and how this knowledge might have affected the therapeutic alliance.

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Authors: Carter MM, Marin NW, Murrell KL.

Year: 1999

Title: The efficacy of habituation in decreasing subjective distress among high anxiety-sensitive college students

Aims:

To investigate the comparative efficacy of interoceptive exposure alone (hyperventilation) versus interoceptive exposure in combination with cognitive restructuring in reducing anxiety among high Anxiety-Sensitive (AS) participants

Participants:

24 undergraduate students at an American university who were selected based on their Anxiety Sensitivity Index ($ASI > 29$). Habituation group: 12 participants; male 8%, female 92%; mean age 19.17 (SD 1.47) Cognitive restructuring group: 12 participants; male 17%, female 93%; mean age 19.00 (SD 1.48)

Practitioners and training:

No information provided

Intervention and control:

Hyperventilation group only (control group): followed the procedure outlined in the method section.

Cognitive restructuring (intervention group): underwent a similar procedure as outlined in the method section except that the two most troublesome thoughts from the ACQ were targeted for restructuring after each hyperventilation phase - consistent with Panic Control Treatment

of Barlow and Cerny (1988)

Measures:

Anxiety Sensitivity Test (ASI; Reiss et al, 1986); Agoraphobics Cognition Questionnaire (ACQ; Chambless et al, 1984); The Hyperventilation Questionnaire (HQ; Rappee and Medoro, 1994); State-Trait Anxiety Inventory - State version (STAI-S; Spielberger et al, 1970; Knight et al, 1983); Medical History Questionnaire (MHQ).

Method:

Participants completed the ASI, HQ and STAI-S and were randomly assigned to (a) repeated hyperventilation (control group) or (b) repeated hyperventilation with cognitive restructuring (intervention group). After completion of the measures, each group was asked to complete the hyperventilation phase and was then instructed to complete the HQ, ACQ and STAI-S.

Participants were given five minutes rest and then asked to repeat the procedure – this was continued until participants had completed five trials of hyperventilation .

Findings:

Repeated measures ANOVAS indicated that the cognitive restructuring group evidenced a significant reduction in state anxiety as measured by the STAI-S ($p < .001$) and somatic sensations, catastrophic cognition and anxiety ($p < .001$) as measured by the HQ. Results from the 'habituation alone' group were non-significant.

Results indicated that brief cognitive restructuring procedures can be effective in reducing the anxiety experienced from a biological challenge procedure among high AS participants.

Comments:

This study used a simple method of anxiety induction and the results might change depending on the method chosen to induce anxiety. The sample size is small ($n=24$) and predominately female, and so there may be issues surrounding generalisability. There was no objective measuring of hyperventilation – while participants appeared to listen and follow the tape, it is possible they were not breathing sufficiently deep to trigger the body's response to carbon dioxide. This study did not take into account participants' panic histories and/or anxiety disorder diagnosis.

Authors: Connell J, Barkham MB.

Year: 2005

Title: Mental health norms of students attending university counselling services benchmarked against an age-matched primary care sample

Aims:

1 To provide normative data for the psychological health of students receiving university counselling

2 To benchmark norms against an age-matched sample of people receiving treatment in NHS primary care settings

Participants:

837 clients aged 18-24 attending student counselling from 11 university counselling centres, compared with 578 age-matched clients attending 33 primary care counselling services.

Student counselling sample: mean age 20.6, 72.6% females, 27.4% males, 81.7% White European, 12.3% Asian, 2.1% African/Caribbean, 3.9% Other/mixed ethnic background.

Primary care sample: mean age 21.4, 76.3% female, 23.7% male, 91% White European, 5.1% Asian, 2.0% African/Caribbean, 1.8% Other/mixed ethnic background

Practitioners and training:

N/A

Intervention and contra :

N/A

Measures:

Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM; Evans et al, 2002).

Method:

Analysis of archival CORE-OM data collected for up to one year by university counselling services, between 1999 and 2000. The data was collected primarily for the purpose of audit and evaluation. This data was compared with data for clients aged 18-24 from primary care services over a similar time period. The CORE-OM was completed by clients prior to the commencement of therapy.

university counselling centres in the northeast region of the US. All potential clients were assigned to an intake counsellor who assessed the severity of their presenting problems and referred them to either individual or group counselling. Clients needing individual counselling were assigned to an available counsellor.

Only clients of colour who were diagnosed by their counsellor as meeting criteria for DSM-IV adjustment disorder and clients who were participating exclusively in individual counselling were included. Clients who expressed preferences for a specific counsellor (sex, race or ethnicity) and clients who had previously sought mental health treatment were excluded. After termination of counselling, clients' consent to participate in the study was requested. These clients were told that the purpose of the study was to investigate counsellors' ability to work with different types of clients and that their counsellors would not have access to any information that they provided.

Findings:

Hierarchical regression analyses revealed that students' counselling attitudes and perceptions of their counsellors' general and multicultural competence each accounted for significant variance in their satisfaction with counselling.

Racial and ethnic minority clients' ratings of the counsellors' multicultural counselling competence explained significant variance in satisfaction ratings beyond the variance already accounted for by general counselling competence ratings.

Clients' ratings of their counsellors' multicultural competence partially mediated the relationship between general counselling competence ratings and satisfaction with counselling.

Comments:

The study does not report the number of clients in the entire source population (ie all clients of colour requesting counselling). So although exclusion and inclusion criteria are given, the total number of clients excluded from the study are not available, meaning we do not know the proportion of the source population which comprises the study sample or the characteristics of the excluded clients. It is therefore not possible to determine the level of representativeness of this sample.

There was no mention of client dropouts or missing data. It appears that all clients fulfilling criteria at each of the universities who completed therapy and consented to the study completed all measures, which seems unusual.

It is possible that some clients rate their counsellors as more or less competent due to unique client-based variables such as rating or response biases. These factors could have also affected treatment satisfaction ratings. Some clients may have been cued in to the research intent and consciously or subconsciously endorsed responses that presented their counsellors in a more or less favourable light.

The study would be enhanced if a sample of Caucasian clients had been included – to determine how differently Caucasian clients rated their counsellors' multicultural competence, general counselling competence and their satisfaction with treatment. This would have provided an interesting point of comparison.

Authors: Cooper SE, Rowland DL, Esper J.**Year:** 2002**Title:** The relevance of family-of-origin and sexual assault experience to therapeutic outcomes with college students

Aims:

To investigate:

- 1 Whether high levels of positive functioning on 'clients' personal psychological and cognitive resources, their level of affective and interpersonal functioning, and the therapeutic alliance between client and therapist' would be important to achieving greater gains in therapy
- 2 Whether a stressful childhood family environment impacts treatment outcomes negatively

by affecting levels of client functioning

3 Whether childhood sexual abuse negatively affects treatment outcomes independently of stressful family-of-origin experiences; specifically, if those with childhood sexual abuse experiences respond less well to therapy than those without childhood sexual abuse experiences

Participants:

45 participants from severely stressed childhood families, receiving therapeutic treatment at 35 different university counselling centres in the US (identified by 35 therapists). 10 male, 35 female. Mean age 24. Ethnicity: 67% White Americans, 11% African Americans, 2% Asian American, 9% Hispanic American, 4% Native Americans, 4% international students, 2% multiracial student. All participants reported stressful family experiences, with 29 including childhood sexual abuse as one of those experiences. Private, Lutheran-affiliated US university

Practitioners and training:

Not specified

Intervention and control:

No control group. The intervention was the counselling undertaken (unspecified)

Measures:

Social and Occupational (School) Functioning Assessment Scale (SOFAS) (American Psychiatric Association, 1994); The Automatic Thoughts Questionnaire - Positive (ATQ-P; Ingram and Wisnicki, 1988); The Automatic Thoughts Questionnaire - Negative (ATQ-N; Hollon and Kendall, 1980); Generalized Self-Efficacy Scale (GSE; Sherer et al, 1982); The Life Orientation Test (LOT; Scheier, Carver and Bridges, 1994); Outcome Questionnaire-45 (OQ-45; Lambert et al, 1996); The Working Alliance Inventory (WAI; Horvath and Greenberg, 1989); The Family Experiences Scale (FES; Alexander and Baron, 1995); The Childhood Sexual Abuse Questionnaire (CSAQ; Rowland, Zabin and Emerson, 2001). All bound together as one questionnaire.

Method:

Questionnaires were sent to the directors of the counselling centres, who asked staff to identify potential participants. Staff and participants completed the questionnaires independently, and the centre returned them to the researchers.

Findings:

There was a significant difference in pre- and post-therapy scores on the SOFAS when rated by the client and the therapist. Family experiences in the sample were more negative than that found in a typical student population seeking therapy at a university counselling centre. Improvement in psychosocial functioning was related to all three client covariates (clients' personal psychological and cognitive resources, their level of affective and interpersonal functioning, and the therapeutic alliance between client and therapist). Although the level of stressful childhood family experiences did not directly affect improvement, it may have indirectly affected it through the client covariates. Child sexual abuse did not impact on improvement.

Comments:

Very specific population, therefore difficulties generalising. Small N, but large number of settings.

Authors: Destefano TJ, Mellott RM, Petersen JD.

Year: 2001

Title: A preliminary assessment of the impact of counselling on student adjustment to college

Aims:

To compare adaptation to college by students who had sought counselling services with a control group and to assess the effect of counselling on students' perceptions of their adjustment to college

Participants:

173 college students from a university counselling centre. 23% male, 77% female. 87.3% Caucasian, 6.9% Hispanic American, 5.8% Other. Counselling group N=80. Male 16%, female 84%. 83% Caucasian. Control group N=93. 28% male, 72% female. 89% Caucasian

Practitioners and training:

Licensed psychologists, certified professional counsellors and predoctoral interns

Intervention and control:

Intervention: brief problem-managed counselling. The control group recruited from classes

across campus, matched on sex and academic classification only

Measures:

Student Adaptation to College Questionnaire (SACO; Baker and Siryk, 1989. 67 items, four subscales); Demographics Questionnaire; Recruitment Screening Form (five questions related to receiving counselling and other helping services).

Method:

Pre-test: participants in the counselling group completed the measures shortly after their intake session. Control subjects completed the measures after a class. Control students were excluded if they positively answered any of the screening questions .ie they were receiving counselling/help.

Post-test The SACO was completed. The counselling group participants were contacted after their sixth session. If counselling had been terminated by this point then contact was made by telephone. The control group participants completed the measure six to eight weeks later, at the end of a class.

Findings:

There was no difference between the two groups on any of the demographics. There was no significant difference on SACO total and subtest scores between the completers and noncompleters. There was a significant main effect on the subscales between the two groups. On the subscales of Academic Adjustment, Social Adjustment and Personal Emotional Adjustment the counselling group scored significantly higher than the control group, with the greatest discrepancy on the Personal Emotional Adjustment scale; however, there was no difference on the Attachment to Institution subscale. There was no significant difference between groups on the post-test subscale scores. The differences on the post-test SACO between the two groups were significantly smaller than the pre-test scores.

Comments:

This study offers preliminary data suggesting that counselling can be effective in helping students adjust to college life. The data derived from this study seem to suggest that the SACO is a useful instrument for tapping levels of student adaptation to college life and offering early detection of potential, developing problems. However, these promising, preliminary results should be considered in light of the following:

- 1 There was a 37% attrition rate from the counselling group. This is a perennial problem for outcome studies relying on post-treatment data.
 - 2 The evidence is reliant on data from the SACO, a self-report measure. The study may have benefited from administering an observer/rater completed instrument for comparison with self-report data.
 - 3 The counselling group was composed of volunteers, so questions of sample representativeness are raised. Volunteers could differ significantly from the cohort of students receiving counselling who did not volunteer for the study. However, this problem is unavoidable as mandatory participation in research studies is often not feasible/ethical.
 - 4 There is no follow-up data. The gains achieved by the counselling group could have attenuated following the 'protective' post-treatment effect of counselling.
 - 5 The homogeneity of the sample, predominantly White and female from a single university setting, could limit the applicability of these results.
-

Authors: Dimson CJ.

Year: 2000

Title: Presenting problems and coping styles of university counselling centre clients

Aims:

To empirically identify the typical profiles of university counselling centre clients with respect to presenting problems and coping styles

Participants:

205 university counselling centre clients in a large western USA university volunteered to participate in the study over 1995-1997, representing 12% of the 1,744 clients seen at the university counselling centre. Mean age 22.89 years, range 17-46. 31% were male, 69% female. 88% of participants were Caucasian, 4% Hispanic, 2% African American and 2% Asian. 3% indicated they were none of the above and 2% left this item blank. 57% of participants had had some previous therapy, 0.5% had had psychiatric hospitalisation

Practitioners and training:

Counselling staff were doctoral level, masters level, or practicum students enrolled in doctoral or masters programs in psychology

Intervention and control:

N/A

Measures:

The Computerized Assessment System for Psychotherapy Evaluation and Research (CASPER; Farrell and McCullough, 1989); Coping Inventory for Stressful Situations (CISS; Endler and Parker, 1990); The Miller Behavioral Style Scale (MBSS; 1987).

Method:

Data were collected in a university counselling centre. All university students were entitled to six free sessions. All students requesting counselling at the centre met briefly (10-30 minutes) with one of the counsellors on the centre's walk-in team. After information was collected about the client's problem, the walk-in counsellor assigned the client to a formal intake session, after which the client's first session was scheduled.

Walk-in counsellors invited all non-crisis clients to complete CASPER, CISS and MBSS. Clients were asked to complete the measures before the intake session but were told that they could complete the measures between intake and session one. Clients completed two copies of an informed consent form and were scheduled a time to complete the measures. Research measures were administered in a private room which held a computer with the CASPER program on it. CASPER data were made available to clinicians before the client's intake session.

Findings:

Two cluster analyses were performed: (1) presenting problem variables only, (2) both presenting problem and coping variables. In the first cluster analysis, the presenting problem profiles of this sample fell into seven discrete clusters: (1) moderate interpersonal and mood problems; (2) no psychopathology with some substance use; (3) no psychopathology with low substance use; (4) moderate psychopathology with low substance use; (5) high psychopathology with low substance use; (6) moderate psychopathology with high substance use; (7) high psychopathology with high substance use. Discriminate analysis revealed a significant differentiation of these clusters by coping style variables.

In the second cluster analysis, the profiles of this sample with regard to both presenting problems and coping styles fell into nine discrete clusters. These were labeled: (1) no psychopathology with adaptive coping; (2) moderate psychopathology with low substance use and low task-oriented coping; (3) no psychopathology with low coping; (4) no psychopathology with moderate substance use; (5) moderate psychopathology with low substance use and high task-oriented coping; (6) high psychopathology with low substance abuse; (7) moderate physical, interpersonal, and mood problems; (8) moderate thought problems and substance use; (9) high thought problems and substance use.

Both of the cluster analyses, as well as an intercorrelation matrix, suggested a maladaptive function of emotion-oriented coping and an adaptive function of task-oriented coping.

Comments:

Source population was 1,744 clients attending counselling at the university counselling centre. The number of students asked to participate is not given – although the author raises the issue of significant non-compliance of staff members who forgot/omitted to invite students to participate. The result was that 205 students consented to the study. Students in crisis were excluded, although no information on numbers is given. The main threat to the internal validity of the study concerns selection bias due to certain staff members failing to comply with the study. This resulted in a small volunteer sample, heavily affected by selection bias, only representing 12% of the source population. As a result, the findings from this study are limited in generalisability and complicated by variable compliance with the study.

Authors : Dyke JT.

Year: 1996

Title: The association of attachment, object relations and interpersonal functioning with the working alliance in college counselling

Aims:

To investigate the association of client pre-treatment relational characteristics with the strength of the early working alliance in college counselling

Participants:

90 participants were drawn from the client population at a counselling centre of a private urban US university. Mean age 26.79, SD 8.02, range 17-56. 20% of participants were male, 80% female. 52% were Caucasian, 3% African American, 21% Hispanics, 14% Asians and 85 identified as Other. 42.2% of participants had no prior therapy and 57.8 had a history of at least one treatment

Practitioners and training:

3 permanent staff members at the counselling centre – one of whom was the author. All therapists had minimum of four years' experience conducting intake interviews. One therapist was licensed PhD in psychology (18 years' experience), one was an Accredited Certified Social Worker (4 years' experience) and the third was a doctoral candidate in Clinical Psychology (5 years' experience)

Intervention and control:

Counselling provided at the university centre. No control

Measures:

Demographic Questionnaire; Working Alliance Inventory (WAI: Horvath, 1981; Horvath and Greenberg, 1986); Adult Attachment Scale (Collins and Reed, 1990); Inventory of Interpersonal Problems Shortform-Circumplex (Alden, Wiggins and Pincus, 1990); Object Representation Scale (Krohn and Mayman, 1974); Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984, 1988); Global Assessment of Functioning Scale (GAF: Endicott; Spitzer, Fleiss and Cohen, 1976).

Method:

Each client was assigned an intake appointment with one of the three therapists and verbally invited to participate in the study. If a client arrived at the counselling centre in crisis he/she was given the option of opting out and was seen by a professional staff member. Providing the client was emotionally intact they were given a detailed consent form and administered the pre-intake questionnaires. These included (1) an instruction sheet, (2) demographic questionnaire, (3) BIDR, (4) Adult Attachment Scale, (5) Inventory of Interpersonal Problems-Circumplex, (6) A form requesting detailed written narrative of the client's earliest memory.

Measures were counterbalanced to control for sequencing effects. Upon completion of the questionnaires the client proceeded with the intake procedure which comprised two 45-50 minute sessions. After the two intake sessions, the client was given the WAI and then a debriefing statement explaining the purpose of the study. The therapist then completed the WAI.

Findings:

Results showed that the association of the pre-treatment client relational characteristics with the working alliance differed depending on which perspective of the alliance was adopted as a dependent variable.

Client-rated alliance was positively correlated with an aspect of attachment involving the capacity to tolerate intimacy and closeness with others.

No aspects of attachment were associated with the therapist-rated alliance.

Client-rated alliance was positively correlated with the tendency to manifest interpersonal problems involving excessive closeness, and inversely related to interpersonal problems involving coldness, hostility, and the tendency to distance others. It was not associated with the overall severity of interpersonal problems or the quality of object relations.

Therapist-rated alliance was positively correlated with the quality of object relations and negatively correlated with the severity of interpersonal problems, although it was not associated with any specific interpersonal problem type. It was also positively associated with global assessment of functioning, a measure involving both symptom severity and role functioning.

Comments:

This study offers some clinically useful findings based around the knowledge of client pre-treatment characteristics associated with early working alliance. It was found that the client's capacity for closeness was most relevant to the client's ability to form an initial working alliance, rather than levels of general relational health as predicted by the therapists. This finding flags up (1) the importance of attending to the client's perspective on the alliance and (2) discussion between client and therapist on their perspectives on the alliance. However the study suffered from some significant flaws. Clients were transferred to different therapists part way through the study and this was not planned as part of the design. Therapist effects – although identified by the author – were not statistically tested. The WAI was given after only two intake sessions, which may not be long enough to establish a working alliance.

Authors: Elligson AG.**Year:** 1990**Title:** Early premature termination from a university counselling centre: a qualitative research study**Aims:**

To construct a grounded theory of early premature termination to better understand the phenomenon and guide subsequent inquiry

Participants:

10 clients (of 47 selected) from a university counselling centre, USA, who met 'Early Premature Termination' criteria, 50% male. Mean age 28.9, range 19-43 years. 5 undergraduates; 2 students and staff; 3 staff

Practitioners and training:

12 therapists with counselling or clinical psychology background and with varying levels of experience. Clients of masters-level practicum students omitted. No more than two clients per therapist

Intervention and control:

Routine individual counselling at university counselling centre. Brief therapy up to 12 sessions. Clients pay a small fee (mode \$3 per session)

Measures:

Semi-structured interviews. Data analysed using 'Constant Comparative Method' (Glaser and Strauss, 1967).

Method:

Qualitative methodology using grounded theory. Open-ended, semi-structured interviews lasting 40-45mins. Conducted up to six months post termination. Interviews were audiotaped.

findings:

Main finding was that clients who meet early premature termination criteria may actually perceive greater early progress in counselling relative to the perceived 'costs' (time/energy/resources) of counselling than do clients who persist in counselling for longer. There was a large degree of variability amongst participants, suggesting early termination was a highly individualistic, multifaceted experience. Termination was more often associated with an internal rather than an external (eg evaluation of counsellor) factor, apart from difficulty scheduling appointments. There was near unanimous satisfaction with 'counselling experience'. The most salient termination factor was the perception of having made progress in one or two counselling sessions and simultaneously experiencing a decreased sense of need to return.

Comments:

'Early premature termination' is defined as those who unilaterally discontinue after the first or second session. The author used purposeful/theoretical sampling appropriately, which was well described. Possible limitations are the effects of audio-recording and knowing that the researcher was a member of staff, though these were all discussed. A limitation of the generalisability of the research is that three of the clients were staff members, and two were staff and students.

Authors: Erdur O, Rude SS, Baron A. **Year:** 2003

Title: Symptom improvement and length of treatment in ethnically similar and dissimilar client-therapist pairings

Aims:

To examine the length of treatment and degree of symptom improvement of African American, Hispanic and Caucasian clients as a function of therapist ethnicity

Participants:

973 clients from 42 US university and college counselling centres over a two-year period

Practitioners and training:

194 therapists; 121 female, 73 male; 11 African American, 11 Hispanic, 172 Caucasian; 21 therapists were trainees, 42 had a masters degree and 53 a doctorate. Years of experience ranged from less than one year to 37 years (mean 7.39 years)

Intervention and control:

Normal therapy provided at 42 counselling centres - not defined. No control

Measures:

The Outcome Questionnaire 45 (OQ-45, Lambert et al, 1994).

Method:

Archival data (1997-1998) was used from the Research Consortium of Counselling Psychological Services in Higher Education. Only those client-therapist ethnicity combinations for which they had valid data on at least 18 dyads within each of two or more client-therapist ethnicity combinations were included. Number of sessions and pre- and post-change scores for the OQ-45 were compared for ethnic similar and dissimilar client/therapist and for individual combinations with the ethnicity of the client held constant.

Findings:

There was no significant difference in OQ-45 change scores between ethnically similar and dissimilar client/therapist dyads, nor were there any differences in the number of sessions attended. Similar results were obtained considering the therapist-client ethnicity combinations separately, apart from a trend for Hispanic clients to stay in therapy longer with Caucasian therapists.

Comments:

The validity of the study was limited as the sample was not representative of the entire population (973/4483), although it was a relatively large sample overall. There were no obvious confounding biases; pre-therapy differences in severity, number of sessions/change, therapist experience and skewed data were all considered. Clients were not randomly allocated to therapists. Whether the results are generalisable to the UK is debatable, as the ethnic group dyads examined are representative of the US population rather than that of the UK. Also a sizeable minority of the therapists were trainees and the educational level of a large proportion was not known.

Authors: Erickson Cornish JA, Riva MT, Henderson MC, Kominars KD, Mcintosh S. **Year:** 2000

Title: Perceived distress in university counselling centre clients across a six-year period

Aims:

To examine if overall distress levels, and the number of extremely distressed clients presenting at a counselling centre had increased over time

Participants:

982 university counselling clients at a small private western university, USA. 33% male, 67% female. Mean age 27.34, SD 8.06. 82% Caucasian

Practitioners and training:

Not specified

Intervention and control:

N/A

Measures:

Global Severity Index (GSI); a summary scale of the Brief Symptom Inventory (BSI; Derogatis, 1993), a short version of the Symptom Checklist 90-R (Derogatis and Cleary, 1977).

Method:

Immediately prior to their intake session, clients completed the BSI (from which the GSI is

calculated) and a Demographics Questionnaire. Archival data for the school years spanning 1986-1992 (but excluding 1989-1990 during which the BSI was not administered) was analysed.

Findings:

There was a statistically significant difference in GSI scores by year, but this difference was between the 1988/9 and 1990/1 years only. There was no general increase in distress over time. There was a statistically significant association between academic year and the proportion of extremely distressed clients ($p < .05$) There was a trend that the numbers of extremely distressed clients were low for the first three years (four to six clients) but then more than doubled for the fourth and fifth years.

Comments:

This is an important study addressing the question of whether there has been an increase in levels of distress in university counselling clients over time and also in the number of distressed clients presenting for counselling. The finding that the increase in distress was not as large as anticipated has important implications. The study has demonstrated that this is an area that is worth investigating more thoroughly in terms of informing service provision. The study's procedures are transparent and replicable although there are certain limiting factors as addressed below.

- 1 It is not clear from the study whether the participants included all the students who presented at the service as there is quite a fluctuation in the reported numbers for each year.
- 2 The study is too small to draw any definitive conclusions about changes in student pathology and there is no other supporting evidence to support the proposed explanation for the misperceptions of service providers.
- 3 The study is limited in external validity. It was conducted at one service only over a relatively short time period (six years) and the sample was predominantly White (82%).

Authors: Evans JE.

Year: 2003

Title: The effect of individual and group counselling intervention on the test anxiety of college students

Aims:

To investigate the effects of counselling (individual and group) on test anxiety and obtained test scores

Participants:

80 first-year students attending a Summer Academic Preparation Programme designed to enhance students' mathematics performance, at an urban southern American college. All students in attendance participated. 40 students were in each condition. Total sample consisted of 39% male, 61% female; 71% aged 20 or less, 20% aged 21 to 30; 92.5% African American, 2.5% Anglo American, 5% Hispanic American

Practitioners and training:

Not specified

Intervention and control:

The control group received group counselling and the experimental group received individual counselling

Measures:

Texas Academic Skills Program Test (TASP; tests the academic performance in maths); Test Anxiety Inventory (TAI; Spielberger, 1972. Anxiety is measured as a situation-specific personality trait); The Evans Attitude Survey (developed by the researcher. Measures attitudes towards the TASP).

Method:

All participants completed the TAI and the TASP before allocation to condition. Participants in both groups were given counselling for an average of 20 minutes, three days a week for eight weeks. After completion of therapy, participants were administered the TAI, the TASP and the Evans Attitude Survey.

Findings:

There was a significant difference between the TAI scores for the control/group (mean 72.53) and experimental/individual (mean 65.43) groups, $t(78) = -4.51$, $p < .001$. There was no

significant difference between TASP scores for the control and experimental groups. There was no significant difference on the TAI for gender, age, income level, or ethnicity. There was a difference between the groups on the Evans Attitude Test, $t(98)=-1.99$, $p<.05$, with the control group (mean 36.88) having more favourable attitudes towards the TASP than those in the experimental group (mean 34.10). There was no significant difference for gender, age, or income level on TAI scores within the experimental group. There was no significant difference for gender, age or income level on TAI scores within the control group.

Comments:

Limitations to the research are that all the students attending a summer programme were included in the study. No indication is given that the students were suffering from test anxiety, nor are their scores on the Test Anxiety Inventory compared with normative data, rather an assumption is made. 'Counselling' is not defined beyond 'individual' and 'group'.

Authors: Freedy JR, Monnier J, Shaw DL.

Year: 2002

Title: Trauma screening in students attending a medical university

Aims :

To examine the effect of adding trauma screening to standard intake measures

Participants:

203 students who sought counselling and psychological services at a southeastern US medical university. All clients had not had previous therapy at the centre. Sample 1 N=130; mean age 27.8, SD 6.5; 29% male, 71% female; 5.5% African American, 5.5% Asian American, 87.7% European American, 1.3% Hispanic American. Sample 2 N=73; mean age 27.6, SD 5.7; 28% male, 72% female; 5.4% African American, 6.9% Asian American, 83.3% European American, 3.1% Hispanic American

Practitioners and training:

Licensed clinical psychologists, pre-doctoral clinical psychology trainees, post-doctoral fellows

Intervention and control:

N/A

Measures:

Intake form (unspecified; demographic information); intake summaries (summaries of intake interview); Trauma Assessment for Adults (Resnick et al, 1996); Brief Symptom Inventory (BSI; Derogatis and Spencer, 1982); Global Severity Index (GSI; American Psychiatric Association, 1994).

Method:

Clients completed the intake form prior to their first assessment. Clinicians completed the intake summaries from the client's assessment interviews. Sample 2 clients also completed the TAA, which was cut from 17 to eight items to exclude questions relating to trauma not relevant eg combat exposure, and the BSI (which leads to the Global Severity Index (GSI)).

Findings:

Chi-square analysis showed that for the traumatic events of serious accident, attacked (no weapon), sexual assault, rape and child sexual abuse there were significantly different reported rates between the two samples as predicted ($p<.01$), with a prevalence rate of between two and four times as many reported. There was no difference in frequency for attacked (with a weapon) or child physical abuse. Minority ethnic status and physical attack with a weapon were the only variables accounting for significant unique psychological distress variance. Trauma exposure was related to clinically significant levels of psychological distress.

Comments:

This study's findings suggest that screening for lifetime trauma history should be a standard part of mental health screenings in similar medical university counselling centers. This has important implications for development of assessment procedures. More comprehensive assessment procedure involving assessment of trauma history can provide valuable information for treatment conceptualisation and provision. However, this study is derived from a highly specific population and setting, meaning that the findings are necessarily restricted. In addition, the following factors should be considered. The research that was reviewed and supported the assertions is relevant and much of it was conducted with students.

1 The sample population is composed of medical students, so there may be problems with

generalisability (for example, they are probably high functioning and more likely to experience physical assault during training).

2 The TAA version used has not been validated.

3 The intake form was revised between the two samples, but differences are not reported.

4 The 'prospective' sample was much larger than the 'chart review' sample (n=130 and 73 respectively), yet the selection procedures are reported as being the same for both.

5 While the measure of trauma has been validated in previous research, this study cut its length from 17 to eight items. The study reports two examples of omitted items, but does not provide rationale, or a full list of omitted items or validity assessments of the shortened version.

Authors: Frey LL, Tobin J, Beesley D.

Year: 2004

Title: Relational predictors of psychological distress in women and men presenting for university counselling centre services

Aims:

To explore the relationship between relational patterns and psychological distress in college women and men

!Participants:

382 participants from a university counselling service. 35% male, 65% female. Male mean age 22.94, female mean age 22.69. 73% European American/White, 11% Hispanic American, 6% Asian American, 4% international students, 2% African American, 3% non-White

!Practitioners and training:

Not specified

Intervention and control:

No intervention or control

Measures:

Outcome Questionnaire-45 (OQ-45; Lambert et al, 1994); Relational Health Indices (RHI; Liang et al, 2002; subscales of peer, mentor and community); Family Experiences Questionnaire (FEQ; Draper et al, 2002).

Method:

The measures and demographic information were collected as part of the routine intake process. Utilising a multiple regression, the OQ-45 was used as the outcome variable, and the predictor variables were RHI, FEQ and year in school.

Findings:

The predictor variables were not highly correlated. The correlations between predictor variables and the outcome variable ranged from .00 to .44. For females the overall model was significant with a large effect size. Year in school and FEQ were significant but small-sized predictors, and RHI was a significant predictor with a large effect size. Higher scores on the OQ-45 were predicted by fewer years in school, higher levels of troubling family experiences, and decreased levels of peer and community relational health. For males, the overall model was significant with a large effect size. Year in school was not a significant individual predictor. FEQ was a significant predictor with a small to moderate effect size, and RHI was significant also with a moderate to large effect size. The direction of the effects was the same as for females.

Comments:

The study's findings support the theory that lack of growth-enhancing relationships predicts psychological distress. Different patterns of relational health were found to predict psychological distress in women and men, having implications for designing and delivering counselling interventions for women and men. Although the study's findings have useful implications for staff involved in delivering counselling treatments to students, the following factors should be rectified/addressed in any future research in this area:

1 It is not clear if the sample included all clients presenting at the counselling centre as the use of inclusion/exclusion criteria was not reported. In addition, there was no information on the participants who declined to participate in the study, leaving the study open to questions on sample representativeness.

2 No time frame for the collection of data was reported.

3 It has been shown in the literature that parental attachment influences college student adjustment; the study would therefore have benefitted from using a validated measure of attachment.

4 The ethnic diversity of the study group was limited, although preliminary analyses were conducted to examine effects related to ethnic group membership.

5 The correlations ranged from small to moderate and some of the study's effect sizes were small, placing limits on confidence in the study's findings. In addition, the correlational nature of the analyses limits conclusions that can be drawn regarding causality.

Authors: Green JL, Lowry JL, Kopta SM.

Year: 2003

Title: College students versus college counselling centre clients: what are the differences?

Aims :

To compare samples of college counselling centre clients and college students not in counselling on the following variables: type of problem, well-being, psychological symptoms, life functioning and global mental health. It was also the aim of the study to compare these data to normative data from community adults not in treatment and adult psychotherapy outpatients.

The following hypotheses were tested:

1 That there is no difference in patterns of presenting problem endorsement between counselling clients and college students

2 That the severity of distress for global mental health would be greater for college counselling clients than college students

3 That the sequence from healthiest to most distressed/dysfunctional would be: community adults not in treatment, college students, college counselling clients and adult psychotherapy outpatients

Participants:

138 college students recruited from undergraduate psychology classes. Mean age 19.9 years, SD 1.3. 37% males, 63% females, 88% Caucasian, all single. None of these participants had been in previous psychological treatment. 208 college counselling centre clients who had sought treatment at the counselling centre between September 1997 and May 1998. Mean age 20.1, SD 2.4. 28% males, 72% females. 88% Caucasian, 96% single. 48% reported previous counselling or psychotherapy experience. 211 adult outpatients.

380 community adults not in treatment

Practitioners and training:

Not specified

Intervention and control:

N/A

Measures:

Problem Check List: unvalidated questionnaire created by the college's counselling centre staff; Psychotherapy Outcome Assessment and Monitoring System-College Counselling Center Version (POAMS-CCV; Kopta and Lowry, 1997).

Method:

Undergraduate student volunteers were solicited through instructors of undergraduate psychology courses. Each participant completed a brief demographic questionnaire, the POAMS-CCV and the Problem Check List. Students stated which psychology course they wished to receive extra credit for (for participation in study). All data were anonymous.

Counselling centre clients who requested services between September 1997 and May 1998 were asked to complete an intake packet prior to their first counselling session. The packet included a client information form and the POAMS-CCV. All data were kept confidential and all participants were treated in accordance with the American Psychological Association's guide to ethical practice.

Findings:

The two student groups demonstrated differences in patterns of presenting problems. Chi-square analysis showed that students attending counselling were significantly more likely to endorse the presenting problems of depression, procrastination/motivation, decisions about

career, academic performance/study skills, financial concerns, uncertainty about life after college, and body image concerns (all $p < .001$) and anxiety ($p < .05$). In addition, adults not in treatment (healthiest), college students, college counselling centre clients, and adult outpatients (most distressed/dysfunctional) differed on severity of well-being, psychological symptoms, life-functioning and global mental health. Counselling centre clients were significantly more distressed on all dimensions of the POAMS than college students (ES .54-.86) and adults not in treatment, and less distressed than adult outpatients (ES .41-.61).

Comments:

The four samples in the study were distinguished by the amount of distress and dysfunction. A strength of this study is that a profile is provided of the mental health differences between college students not in counselling versus those in counselling. Information such as this can be used to effectively develop treatment programs that can target potential problematic areas for students.

A major flaw concerns sample selection. The sample of college students consisted of volunteers to the study with an interest in psychology. As a result, any norms derived from the study will be somewhat skewed. However, this issue is raised by the authors who also state that even though the results came from a biased sample they were comparable to a more heterogeneous sample employed by Lambert et al (1996). Sample is still open to selection bias and it is therefore not recommended that the norms are used from this study. Although validation data is presented for the POAMS-CCV, this is drawn from an unpublished manuscript.

Authors: Haas E, Hill RD, Lambert M, Morrell B.

Year: 2002

Title: Do early responders to psychotherapy maintain treatment gains?

Aims:

The study explored two primary questions:

- 1 Are clients who respond positively and early to psychotherapy more likely to have a positive treatment response at termination and follow-up?
 - 2 Will those identified as having early positive response to psychotherapy maintain their gains at follow-up?
-

Participants:

147 college student clients recruited from a large, private western university counselling centre providing personal, career and academic support to approximately 1,500 individuals per year. Study sample was 147 college student clients requesting therapy at a university counselling centre. Mean age 23.10 years, SD 3.1. 66% female, 34% male. 84% Caucasian, 5% Latino, 4% Asian/Pacific Islander, 6% mixed ethnicity. 65% reported that they were never married. 81% patients received a formal diagnosis. 19% had their diagnosis deferred and never had a diagnosis recorded in the database. US study

Practitioners and training:

Centre staff included 16 PhD-level licensed psychologists, 15 doctoral-level trainees, and two licensed social workers. Licensed staff saw three quarters of the clients. Therapists held a variety of theoretical orientations, with most subscribing to an integration of more than one system. The most common orientations were cognitive-behavioural (42%), psychodynamidinterpersonal (19%), humanistidexistential (16%), behavioural (6%), other (16%)

Intervention and control:

No control group. Intervention consisted of psychotherapy provided at a university counselling centre

Measures:

Outcome Questionnaire (OQ-45; Lambert, Hansen et al, 1996).

Method:

All selected clients received an intake session with a staff psychologist or advanced post-doctoral/pre-doctoral trainee. Intakes were scheduled within one week of seeking services and lasted 10-15 minutes. After intake, client was scheduled for a further appointment with the counsellor within two weeks. Counselling provided free of charge. Prior to intake, clients

completed questionnaires that described current concerns, and severity and duration of distress. Clients completed OQ-45 at intake and prior to each counselling session. Termination of therapy was based on client or therapist decision to end treatment. Time of follow-up ranged from six to 24 months after termination of treatment.

Findings:

Clients with faster rates of response to psychotherapy reported lower termination OQ-45 scores at end of treatment and follow-up.

Five categories of outcome: (1) recovered: if scores increased by 14 points or more and moved from a total score of 64 to <63 (<63 closest to non-clinical population); (2) improved: if scores decreased by 14 points or more post treatment; (3) deteriorated: if scores increased by 14 points or more; (4) casualties: if scores increased by 14 points and if they moved from a total score of <63 to >64; (5) unchanged. These categories were based on change scores. At post-treatment, 38 clients were classified as recovered; 22 as improved; 75 as unchanged; 4 as deteriorated and 8 as casualties. At follow-up, 56 clients were classified as recovered; 20 as improved; 57 as unchanged, 8 as deteriorated and 6 as casualties. Clients in the improved and recovered groups evidenced a more rapid response to treatment than clients in the casualty, deteriorated and unchanged groups.

Comments:

The study provides an important contribution to the operationalisation and measurement of early response in psychotherapy: session-by-session scores were utilised in conjunction with a set of expected responses based on normative data to provide a definition of early response that benchmarks individual data against established norms. The finding that early response in psychotherapy predicted better outcome has important clinical implications: clinicians could learn to distinguish those clients who are going to be especially receptive to therapy from those who will need more prolonged input. This could lead to clinicians providing more targeted treatment, for example using brief therapy models with early responders.

One weakness of the study concerns the numbers of clients who were required to be excluded from the analyses – either because they did not attend therapy sessions after their intake or their initial OQ-45 scores were outside the range (50-97) used to determine expected response curves. However, the study still had high external validity. Random sampling was used to select from the pool of qualified participants, and the group of subjects who were prepared to participate (147) was compared with the rest of the source population (945-147=798).

The latter reason for exclusion of clients also means that the results of the study cannot be generalised to a population with significantly higher distress. An additional limitation concerns the relatively brief duration of treatment the patients had: basing estimates of early response on the first three sessions means that a portion of patients terminate treatment after being identified as an early responder. However, two-year follow-up data was used which showed that these clients did in fact maintain treatment gains.

Authors: Hatchett GT, Park HL.

Year: 2004

Title: Relationships among optimism, coping styles, psychopathology, and counselling outcome

Aims:

1 To evaluate the discriminant validity of optimism by examining the relationships between optimism and coping styles, while controlling for psychopathology

2 To evaluate how well optimism, coping styles, and psychopathology predicted counselling outcome

Participants:

96 participants from a university counselling centre in the southeastern United States. Mean age 21.98, SD 5.61. 31.3% males, 68.6% females. 86.5% Caucasian, 10.4% African American, 2.1% Hispanic and 1% Asian. 79.2% single, 12.5% married, 8.3% divorced. US study

Practitioners and training:

Three licensed, doctoral-level psychologists provided counselling services to the participants.

A SYSTEMATIC SCOPING REVIEW OF THE EFFECTS OF

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All three psychologists had experience of working with college students in a university counselling centre environment

Intervention and control:

Counselling provided at the centre. No control

Measures:

Outcome Questionnaire (OQ-45; Lambert et al, 1996); Coping Inventory for Stressful Situations (CISS; Endler and Parker, 1990, 1994, 1999); Life Orientation Test - Revised (LOT-R; Scheier et al, 1994).

Counselling outcome was assessed by means of four different variables: (1) improvement was rated on a five-point Likert scale; (2) OQ-45 readministered at discharge; (3) termination status (ie was termination premature; (4) counselling duration as measured by the number of counselling sessions attended.

Method:

Participants completed the OQ-45, LOT-R and CISS during the initial appointment. New clients were informed about the study through the informed consent document. Participants were assigned to the psychologists based on considerations of convenience and availability.

The first author who did not provide any counselling services at the centre scored the questionnaires and conducted data entry. The psychologists had access to their clients' scores and could share these results with their clients if requested. All participating psychologists were instructed to provide counselling services as they would under normal circumstances. At termination of counselling, psychologists rated the level of improvement using the therapist rating scale, determined termination status, and re-administered the OQ-45. The second author collected the data and reviewed the participants' charts at the centre to ensure adherence to the research design.

findings:

- 1 Lower levels of optimism were associated with premature termination, but after controlling for psychopathology this did not reach significance.
 - 2 Greater levels of optimism were associated with better therapist ratings, even after partialling out psychopathology.
 - 3 Coping styles were not useful for predicting any of the outcome measures.
 - 4 Optimism was positively correlated with task-oriented coping and social diversion (social support), and it was negatively correlated with emotion-oriented coping and avoidance (distraction) coping.
 - 5 After partialling out psychopathology, only the relationship between optimism and task-oriented coping remained statistically different from zero.
 - 6 Results provide limited support for the discriminant validity of optimism in general and the Life Orientation Test in particular.
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Comments:

This study has useful therapeutic and clinical implications. The finding that optimism predicted clinical outcome, even after pre-treatment psychopathology had been partialled out, means that this construct could be useful for predicting clients' responses to psychotherapy. Practitioners could assess the construct of optimism as part of the treatment planning process. The authors flag up ways in which optimism research might be usefully extended: early assessment and remediation of pessimistic thoughts could lead to superior outcomes or different types of interventions could be formulated for optimists and pessimists. However, the implications of the study's findings should be considered in light of the following limiting factors:

- 1 There is some doubt concerning sample representativeness due to inadequate reporting. It is stated that all students who presented over one academic were asked to participate. However, the authors only report that most agreed and the number of clients who declined and their characteristics are not reported.
- 2 The analyses did not account for therapist effects (variation in skill/type of intervention) although this limitation was acknowledged in the discussion.
- 3 Statistical power was an issue: the study's analyses did not possess enough statistical power to detect small effect sizes.
- 4 The sample of students was used by the authors as primarily a sample of convenience. As a

result, student research is not addressed in the literature review, and the implications of the findings for student counselling are not discussed.

5 The five-point Likert scale used to rate client improvement was a rather crude index.

6 Post-treatment data on the OQ-45 was only available for a small percentage of the sample and data on this variable was excluded from analyses; loss of data from attrition meant that this more objective rating of counselling outcome could not be used.

Authors: Hayes JA, Mahalik JR.

Year: 2000

Title: Gender role conflict and psychological distress in male counselling centre clients

Aims:

To investigate the relationship between factors of gender role conflict and psychological distress

Participants:

99 male students seeking services from a counselling centre at a large, mid-Atlantic research university, USA. Mean age 22.9 (SD 5.3); 89% European Americans

Practitioners and training:

N/A

Intervention and control:

N/A

Measures:

Gender Role Conflict Scale (GRCS; O'Neil et al, 1986); Brief Symptom Inventory (BSI; Derogatis, 1993).

Method:

Measures completed at intake. The BSI was a standard intake measure. Clients were recruited by asking them to complete an optional measure, the GRCS, which was included in the intake package of 300 consecutive males seeking counselling during a single academic year. Structural equation modelling and multiple regression analysis was used to determine the relationship between distress and gender role conflict.

findings:

Gender role conflict was found to be a significant predictor of psychological distress (path coefficient .32, $p < .01$). In particular, gender role conflict factors significantly predicted the Hostility, Social Comfort, and Obsessive Compulsiveness subscales of the BSI (not depression, as in previous studies).

Comments:

Limitations of the research are that the sample of 99 was small for carrying out structural equation modelling, so the results should be treated with caution. The study was carried out in one university counselling centre in the USA, so may limit generalisability to the UK. The authors report that their findings suggest that clinicians need to attend to gender role conflict in male clients by helping them examine and deconstruct their learned gender roles.

Authors: Heppner P, Kivlighan DM, Good, GE, Roehlke HJ, Hill HE, Ashby JS. Year: 1994

Title: Presenting problems of university counselling centre clients: a snapshot and multivariate classification scheme

Aims:

To use a computerised intake interview: the Computerized Assessment System for Psychotherapy Evaluation and Research (CASPER), which would develop a multivariate categorisation scheme for classifying clients' presenting problems

Participants:

611 students at a major public university in the midwestern United States who presented at the university counselling centre. Mean age 23.9 years, range 14-52 years. 70.7% female, 29.3% male. 92.2% White Americans, 2.6% African Americans, 2.0% Asians, 1.3% Hispanics, 1.0% Native Americans and 0.8% Other. 74% single, 13.3% married, 4.1% cohabiting, 6.4% divorced, 2% separated, 0.25 widowed and 13.4% had one or more children. US study

Practitioners and training:

Not specified

Intervention and control:

N/A

Measures:

Computerized Assessment System for Psychotherapy Evaluation and Research (CASPER; McCullough and Farrell, 1983) which is a mental health information system designed for use with a microcomputer.

Method:

Clients requesting counselling at the university counselling centre were asked to complete CASPER as part of the intake procedure. Those clients who arrived in crisis completed CASPER after the initial intake interview. Clients responses were recorded and stored in the computer for nine months. As CASPER was part of the intake procedure these data were archival, meaning that informed consent was not possible or necessary. Data were anonymised and analysed in aggregate form.

Findings:

A multivariate system for classifying clients' presenting problems was empirically developed. Using six problem categories and one global measure of distress, nine clusters of clients were identified with similar proportions of men and women. The nine client clusters were statistically stable and seemed to represent clients with different types of presenting problems. Two groups of clients had high generalised levels of stress (clusters 1 and 2), one group with situational adjustment: unassessed concerns (cluster 9); two groups with somatic concerns (clusters 5 and 6); three groups with interpersonal concerns (clusters 3, 4, and 5), and one group with chemical concerns (cluster 8).

Comments:

Overall level of reporting was adequate. Exact probability levels were not reported - but this was possibly due to the requirements of the journal. External validity was high: the study used the entire source population of clients requesting counselling at a university counselling centre (n=611). One weakness of the study concerns the variable Ns reported in the study - possibly due to missing data/non-completed items or the reduction of problem categories. A footnote would have helped to clarify this point about sample composition.

The conclusions are supported by the results, with this caveat. The data, by the authors' own admission, are highly restricted. The sample comprises data from one counselling centre which includes a disproportionate number of females. A greater concern is the omission of items relating to sexual-assault trauma (also raised by authors) resulting in a classification scheme that is probably quite skewed and not truly representative.

A strength of the study is that a multivariate classification system has been empirically developed that has provided substantial information about presenting problems of university centre clients. The multivariate approach has provided a more thorough and complex assessment of presenting problems than the traditional 'asking questions' format of an assessment interview. Such an approach, in conjunction with formal assessment procedure could be especially useful for case disposition, therapeutic interventions, preventive interventions with racial minority clients and improved research relating to help-seeking behaviours, problem-solving skills and therapeutic outcomes.

Authors: Kahn JH, Achter JA, Shambaugh EJ.

Year: 2001

Title: Client distress disclosure, characteristics at intake, and outcome in brief counselling

Aims:

To investigate the hypothesis that client tendencies to disclose versus conceal personally distressing information (termed distress disclosure) are related to measures of social support, personality, perceived stress, and symptomatology at intake, as well as improvement over the course of counselling

Participants:

79 clients of a counselling centre of a small US midwestern liberal arts college. The sample

accounted for 20% of clients seeking counselling during the data collection period. Mean age 20.37 years, SD 3.03. 19% men, 81% women. 96% of the clients were Caucasian and 90% reported a Christian religious affiliation

Practitioners and training:

Four counsellors provided counselling to participating clients. The counsellors included a licensed psychologist, a licensed clinical social worker (with an M.S. in counselling) and two masters-level trainees in counselling (working under the supervision of the psychologist)

Intervention and control:

Counselling provided at the college counselling centre. No control group

Measures:

Pre-therapy: 12 item Distress Disclosure Index (DDI; Kahn and Hessling, 2001); Social Provisions Scale (SPS; Cutrona and Russell, 1987); 20-item Positive and Negative Affect Schedule (PANAS; Watson, Clark and Tellegen, 1988); Pre- and post-therapy: Perceived Stress Scale (PSS; Cohen, Kamarck and Mermelstein, 1983); Brief Symptom Inventory (BSI; Derogatis, 1993).

Method:

All students who requested counselling during 1998-1999 and 1999-2000 academic years were invited to participate, provided they were not in crisis requiring emergency attention. Clients were given a \$1 incentive to participate on completion of the termination questionnaire. After signing and completing the consent form, participants took approximately 10-15 minutes prior to their intake appointment to complete the questionnaire: the demographic items, the DDI, SPS, PANAS, PSS and BSI. After termination, participants were sent a letter thanking them for their participation and a follow-up questionnaire (PSS and BSI) and the \$1. Participants who did not return the termination questionnaire within a few weeks were sent a brief reminder along with an additional copy of the follow-up questionnaire.

Findings:

- 1 Distress disclosure was related to social support ($p < .001$), trait positive affectivity ($p < .05$), and trait negative affectivity ($p < .05$) at intake.
- 2 Distress disclosure was associated with a decrease in client-rated stress and symptomatology over the course of counselling.

Comments:

The study offers some important clinical findings. The study demonstrated benefits of disclosure in reducing perceived stress and symptomatology at termination. This benefit has not always been detected in previous counselling research and contradicts arguments that disclosure is detrimental to client improvement (Kelly, 2000). However, the authors pointed out that they only looked at the effect of disclosing distressing information, avoiding the confounding nature of disclosing non-distressing information that characterised previous research. The teasing apart of the differential/conditional effects of disclosure has important implications for treatment planning/formulation and establishment of alliance in therapy.

However, the study has some significant limitations. The sample is not representative, comprising only 20% of the population of clients seeking counselling. It is not clear whether the remaining proportion of clients were those who refused to participate or those who were not recruited to the study because they were in crisis. Some demographic information on those clients who refused to participate would have been useful in helping to determine sample representativeness.

The generalisability of findings are restricted due to the fact that the sample comprised largely women (81%) and Caucasians (96%), meaning that the differing disclosure tendencies among males and differing ethnic groups were not picked up by this study. There was substantial attrition: missing follow-up data for 34 clients. However, the authors took steps to mitigate this confound by testing for differences between responders and non-responders (to questionnaires).

Finally, there was a small number of counsellors in the study (four); one counsellor was also the second author and two of the counsellors were trainees. The extent of these effects on the validity of the study has not been made clear. It should also be noted that the paper looked at the tendency to disclose distress as measured by a questionnaire at pre-therapy, rather than actual disclosure.

Authors: Keutzer CS, Morrill WH, Holmes RH, Sherman L, Davenport E, Tistadt G, Francisco R, Murphy MJ.

Year: 1998

Title: Precipitating events and presenting problems of university counselling centre clients: some demographic differences

Aims:

- 1 To systematically explore the differences across the variables of gender, age, class standing and whether or not clients had received counselling prior to their coming to the counselling centre
- 2 To investigate if there is a relationship between the client's reported distress and the therapist's appraisal of the precipitating event that brought the student to the centre

Participants:

1,117 students seen at a university counselling centre. Mean age 25 years (range 15-63). Excluded from the study were: students seen at intake by a pre-masters-level trainee, students who were seen at intake for couples counselling, students for whom the intake was very brief due to time pressures, students seeing referral information only, students who failed to complete the ICP

Practitioners and training:

14 therapists including: 4 pre-doctoral interns and 10 staff members (1 masters-level counsellor, 1 masters-level social worker, 8 doctoral-level psychologists)

Intervention and control:

N/A

Measures:

Inventory of Common Problems (JCP, Hoffman and Weiss, 1986): 6 domains of problems – depression, anxiety, academic, interpersonal, physical health, substance-use; Therapist Rating Form (TRF; modified Hoffman and Weiss, 1986): classification of the crisis of a presenting client into three broad types – situational crises, developmental crises, and crises reflecting underlying psychopathology.

Method:

All students receiving services at the counselling centre were asked to fill out the ICP prior to the intake session and all therapists were asked to rate each student on the TRF immediately following intake.

Findings:

- 1 Females had higher total scores on the ICP than males (2.46 v 2.29, DF 61093, F 9.14, $P < .01$). No significant differences were found with regard to gender and the TRF.
- 2 Students with prior counselling had higher scores on the ICP than those with no prior counselling (scores not given).
- 3 Students who were rated as having a crisis stemming from underlying psychopathology had higher total ICP scores (2.70) than students rated as having developmental crises (2.36) or situational crises (2.32) ($F = 32.87, p < .01$).
- 4 Undergraduates had a higher proportion of underlying pathology than graduate students and undergraduates had significantly higher total scores on the ICP (scores not given).
- 5 Therapist ratings of TRF showed 29% of the clients were rated as exhibiting underlying pathology; 43% developmental issues; 28% situational problems.

Comments:

The evidence from this study suggests that counselling centres are treatment settings in which a broad range of problems and issues are addressed, and is an important contribution to developing an accurate profile of presenting problems of students seeking treatment at university counselling services. There are significant limitations, mainly concerning the measures used.

- 1 The ICP includes pen and paper, subjective forced-choice items leading to problems of response bias, test-retest reliability and cultural factors in reporting distress or selecting 'legitimate' presenting problems. In addition, items were arbitrarily categorised into domains based on face validity.
 - 2 The TRF involved problems of rater bias.
 - 3 The population included clients aged from 15 yrs, which is outside the age range specified for the current review.
 - 4 Four out of the 14 intake counsellors were pre-doctoral interns, leaving the study open to possible 'therapist effects'.
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Authors: Longo DA, Lent RW, Brown SD.

Year: 1992

Title: Social cognitive variables in the prediction of client motivation and attrition

Aims:

- 1 To explore Bandura's social cognitive model as a framework for understanding clients' intended and actual continuance in counselling
 - 2 To determine to what extent self-efficacy and outcome expectations predict motivation to continue counselling
 - 3 To determine to what extent motivation, self-efficacy, and outcome expectations predict clients' actual return rate following an intake interview
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Participants:

139 undergraduate and graduate students seeking treatment at a counselling centre at a large midwestern US university. Mean age 21.7 years, SD 5.1 years. 29% male, 71% female. 82% were White and 86% were undergraduate students. 89% reported problems that were primarily personal or interpersonal in nature. 11% had used the counselling centre previously. US study

Practitioners and training:

Intake counsellors included 22 regular staff members and five psychology interns. Of the regular staff, 12 were doctoral-level psychologists, three were masters-level social workers and seven were masters-level counsellors. The regular staff had an average of 14 years' clinical experience and performed 58% of the intakes included in the study. The five interns had an average of six years of clinical experience and completed 42% of the intakes.

Intervention and control:

Counselling provided by the centre. No control

Measures:

Self Efficacy: self-efficacy for client behaviors scale, unpublished measure designed for the study; Expectations About Counselling questionnaire (EAC; Tinsley et al, 1980); The Client Problem Identification Questionnaire (CPIQ; Kokotovic and Tracey, 1987); Rosenberg Self-Esteem Scale (SES; Rosenberg, 1965); State-Trait Anxiety Inventory - State Anxiety subscale (STAI-S; Spielberger, 1983).

Method:

Participants were recruited for the study at intake appointments and asked to complete the battery of assessment forms after the intake session.

Participants' expectations were assessed after intake sessions because of the possibility that pre-intake expectations would be confounded by clients' limited knowledge of the counselling process and because such expectations could be affected by exposure to actual counselling. Client attrition was defined as failure to return for the first scheduled session beyond intake. At intake, 35 of the participants either terminated mutually, declined further services, or received external referrals. These participants were excluded from further analyses.

Findings:

- 1 Self-efficacy, outcome expectation and motivation were significantly and positively interrelated.
 - 2 Client gender was associated with outcome expectations and motivation, with women tending to report stronger counselling expectations than men.
 - 3 Problem severity was related to each of the social cognitive variables, producing a negative correlation with self-efficacy: the greater the reported self-efficacy, the less the distress and positive correlations with outcome expectation and motivation.
 - 4 Self-efficacy and outcome expectations each explained unique variation in motivation, beyond client and counsellor background variables.
 - 5 Self-efficacy and motivation were found to predict client return status after an intake interview.
 - 6 Self-efficacy did not relate to global self esteem.
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Comments:

This is a valuable study, exploring the benefits of using social cognitive theory to explain clients' motivation for motivation for counselling and with persisting in counselling. It was found that both the social cognitive variables, self-efficacy and outcome expectations accounted for significant unique variance in motivation. The study was methodologically rigorous. Care was taken to ensure that the sample was representative of the larger sample receiving intake interviews at the centre over the same academic year; it was found that the sample was representative across all variables apart from presenting problem. The authors took steps to eliminate potential confounds: counselling staff were varied in occupational background and theoretical orientation and the analyses accordingly accounted for therapist level of experience.

However, there are a number of limiting factors that should be considered:

- 1 The study is prone to sample selection bias: clients of the study were volunteers (thus not selected randomly) and the sample of drop-outs was small.
- 2 There are limits to the external generalisability of the study: a somewhat homogenous sample (largely White, young adults with personal problems and little prior counselling experience) in one facility only.
- 3 A narrow definition of attrition was employed – mutual terminators and those who declined further services were excluded from analyses.
- 4 It is not confirmed whether the counsellor who performed the intake assessment was different from the counsellor who provided the treatment – this is important information, as participants' levels of motivation and subsequent attrition could be affected by expectancies produced by the initial contact with the intake interviewer.
- 5 The study is not really embedded within a student context and could have contributed more to the field had it included a more extensive review of existing research and a discussion of the implications of the findings for student counselling.

Authors: Mann R.

Year: 2002

Title: Reasons for living versus reasons for dying: the development of suicidal typologies for predicting treatment outcomes

Aims:

To explore the application of qualitative responses in differentiating descriptive categories of suicide that both inform and predict treatment outcomes: (a) Whether 'reasons for living' (RFL) and 'reasons for dying' (RFD) codes can be used to differentiate meaningful categories of suicide; (b) whether RFURFD codes can differentiate suicidal treatment outcomes, and (c) whether RFURFD codes can differentiate severity of suicide

Participants:

188 clients from a university counselling service at The Catholic University of America. 38% male, 62% female. Mean age 21.8, range 17-40. 55% Caucasian, 30% Asian

Practitioners and training:

Not specified

Intervention and control:

Not specified.

Measures:

Suicide Status Form (SSF: Jobes et al, 1997); Reasons For Living/Reasons For Dying (RFURFD; Jobes and Bonanno, 1995; top five reasons – open-ended responses).

Method:

If a client indicated during therapy that suicidality was present, then the patient and therapist completed the SSF. This measure was then completed every session until suicidality was not present for three consecutive sessions. The RFURFD was added on to the end of the SSF. Open-ended RFURFD responses were coded by a trained coder using standardised procedures. Treatment outcomes were assigned by the counselling centre staff as 'resolvers' (three consecutive sessions without suicidality); drop-outs (stopped treatment before resolving suicide status); non-resolvers (stayed in treatment and did not resolve suicidal status for three consecutive sessions).

Findings:

There was no significant difference in the severity of suicide or self-ratings of suicidal intent between outcome groups (resolvers, non-resolvers, drop-outs). The most frequently provided reason for living was having plans and goals (18%), followed by family (17%), enjoyable things (15%) and hopefulness for the future (13%). The most frequent reason for dying was general comments related to the self (31%) followed by general statements about escape (24%). It was found that those who resolved their suicidality were more likely to give RFL as hopeful for the future and about the self; and as RFD a general desire to escape. Those who did not resolve their suicidality were more likely to give as RFL things they enjoy, and specific plans/goals for the future. Drop-outs were most likely to provide as RFL family and friends. Neither treatment length nor severity added anything to these profiles.

Comments:

This was a well thought out and conducted piece of research. The author utilised both the concepts of 'reasons for living' and 'reasons for dying' which are often treated separately in research on suicidal intent. The author points out that the sample as a whole had low lethality/intent and this may have affected the lack of differentiation between the three outcome groups on severity of suicide, although they did find that there was a tendency of lower severity for 'drop-out' but that this did not reach statistical significance. More pertinent characteristics on the sample - suicidal history, psychopathology, co-morbidity - could have been reported by the author.

Authors: Matthews CR, Schmidt LA Goncalves AA, Bursley KH.

Year: '1998

Title: Assessing problem drinking in college students: are counselling centres doing enough?

Aims:

This study sought to determine the degree to which:

- 1 intake questions included in counselling materials are used to direct attention to alcohol use
 - 2 self-report data routinely requested on client intake forms was being incorporated into counsellor assessment of client presenting problems when their reported use reached potentially problematic levels
 - 3 clients themselves reported their use as a concern when consumption reached levels suggested in the literature as problematic
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Participants:

Of 1,106 first-time clients at a university counselling centre in the USA 1,081 were eligible to participate in the study. Participants were predominately white (87%), United States citizens (92%), males 34% (mean age 23.13), females 66% (mean age 21.78)

Practitioners and training:

Not specified

Intervention and control:

N/A

Measures:

Prior to first appointment, the battery of intake measures including the: Brief Symptom Inventory, Beck Depression Inventory, locally designed survey that gathers demographic information, and information regarding the level of concern the client feels regarding a wide range of symptoms. The current study used the demographic information and items relating to alcohol use.

Initial intake appointment: counsellor conducted a structured interview and wrote a detailed intake report including: DSM-IV diagnosis and 'clinical impressions', providing a summary of the intake counsellor's assessment of critical issues that need to be addressed in therapy.

Method:

Archival data from the counselling centre's computerised database was used to draw the sample. For those individuals whose responses met the criteria for potential problem drinkers (n=95) their intake report was reviewed for any mention of determined or potential problem drinking, a rule-out diagnosis, and/or clinical impressions. If the intake report indicated that the client's alcohol use had been discussed and determined not to be a current clinical issue, the matter was considered to have been addressed.

findings:

Overall, 12% of the sample reported currently experiencing some mild distress, and about 8% reported moderate or severe distress about their drinking. Women tended to report less distress overall than men. Nearly three times as many men as women reported a history of alcohol abuse.

The proportion of each gender in the sample of students who met the definition of potential problem drinker (n=95) was not significantly different. Only 51% of the intake reports for clients who met the criteria for a potential problem drinker contained any mention of the client's use of alcohol.

Comments:

This is an important study which not only assessed the rate of problem drinking over one

academic year but also the degree to which self-reported drinking problems were being picked up by the counsellors at intake assessment. Results showed that 49% of the intake reports failed to mention alcohol use in almost half of the cases where self-reported consumption patterns should have been cause for concern. Failure of intake counsellors to address the influence of alcohol use at levels shown to be problematic could have detrimental implications for effective treatment planning. This study highlights the important role of self-report data on drinking problems as a flag for intake counsellors to focus/inquire about that as a presenting problem.

However the following should be considered when interpreting these results:

1 Although there was evidence that problem drinking was a factor for many of the students who sought counselling for the first time during the time period concerned this was not designed as a prevalence study. The results are limited by their dependence on a highly accessible sample and therefore do not provide any information as to whether potential problem drinking was more or less present in this counselling centre population than in the general campus population.

2 986 participants did not meet criteria for problem drinking. It would have been helpful to have been able to compare the demographic characteristics of those who met criteria for problem drinking (n=95) with those who did not (n=986).

3 It was not possible to say definitively from this study whether problem drinking was or was not present in the 49% of cases in which it was self-reported but no mention of it was made in the intake report.

4 The number of counsellors and their training, specifically in diagnostic procedures, was not given.

Authors: Michel L, Drapeau M, Despland JN.

Year: 2003

Title: A four-session format to work with university students: the Brief Psychodynamic Investigation

Aims:

To examine if students attending a university counselling centre are different from a general outpatient sample and to examine if a Brief Psychodynamic Investigation is effective

Participants:

35 student sample participants from a clinic affiliated to the university, located in Switzerland. Mean age 22.89, SD 2.63. Clients with serious psychiatric disorders are referred elsewhere. 35 outpatient sample participants. Mean age 32.14, SD 8.82

Practitioners and training:

A licensed psychiatrist and psychotherapist at the clinic with over 20 years' experience and highly competent in BPI

Intervention and control:

The intervention was four sessions of Brief Psychodynamic Investigation (BPI; Gillieron, 1997). No control group

Measures:

Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1994; used the Global Severity Index only); Hamilton Depression (HDRS-21 items; Hamilton, 1960) and Anxiety Scales (HAMA-21 item; Hamilton, 1959); Social Adjustment Self-rated Scale (SAS-SR; Weissman and Bothwell, 1976); Satisfaction with Therapy Questionnaire (5 questions, seven-point Likert scale). (BPI; Gillieron, 1997).

Method:

All assessments done at the clinics. The measures were completed before the first session for both groups, and after treatment for the students. The students were also asked to complete the Satisfaction with Therapy Questionnaire after termination of therapy.

Findings:

No significant differences were found between the students and the psychiatric outpatient sample on any of the measures.

There was a significant improvement ($d=.45$) on the SCL-90-R GSI following therapy. Before therapy, 26% were within the non-clinical norms, and afterwards, 71%. A significant

improvement was found on the HDRS ($d=.78$) with a change from 26% to 83% within the general population norms. On the HAMA there was again a significant improvement ($d=.45$), with a change of 71% to 91% within norms pre- to post-therapy. On the GSI there was a non-significant trend toward improvement.

The students considered the therapy to be moderately helpful (mean 4.67, SD 1.72), moderately helpful in achieving their therapeutic goals (mean 4.67, SD 1.44), mostly satisfied with the sessions (mean 5.20, SD 1.61) and felt the therapy was somewhat helpful in helping them change (mean 3.60, SD 1.5) and reducing symptom impairment (mean 3.53, SD 1.73).

Comments:

This study offers preliminary data indicating that students are satisfied with the BPI and that significant improvement can be obtained. The findings suggest that this brief four-session format is a promising model for college and university counselling services. However, this data is only preliminary and exploratory and has the following limitations which should be addressed in future research attempting to replicate these positive findings:

- 1 No follow-up data is available.
- 2 Sample size is small ($n=35$)
- 3 There is no control/comparison group, meaning that the 'true' effectiveness of the BPI intervention cannot be verified.

Authors: Nafziger MA, Couillard GC, Smith TB, Wiswell DK.

Year: 1998

Title: Normative data on the College Adjustment Scales from a university counselling centre

Aims:

- 1 To provide normative data from a truly clinical population broken down by gender and academic status
- 2 To present data on the nature and severity of the psychological problems of clients seeking services at a counselling centre during a four-year period

Participants:

1,214 Clinical group (CC): students presenting at a USA university counselling centre. Gender: 33% male, 67% female. Ethnicity: 90% White, 1% African American, 1% Native American, 3% Hispanic, 2% Asian American, 2% international students. Academic status: 82% undergraduates, 18% graduates. Comparison group: 636 students not using psychological services. Gender: 38% male, 62% female. Ethnicity: 92% White, 8% American racial or ethnic minority groups or international students. Academic status: 87% undergraduates, 14% graduates

Practitioners and training:

No details given

Intervention and control: N/A

Measures:

College Adjustment Scales (CAS; Anton and Reed, 1991) containing nine subscales: anxiety (AN), depression (DP), suicidal ideation (SI), substance abuse (SA), self-esteem (SE), interpersonal problems (IP), family problems (FP), academic problems (AP), career problems (CP).

Method:

Prior to intake interview, students presenting at the counselling centre completed the CAS, personal data sheet and other intake paperwork.

Findings:

CC: Scored highest on depression, anxiety and self-esteem with mean T scores exceeding the 60T level (one standard deviation above the mean on the CAS) indicating. Mean scores on suicidal ideation, interpersonal and family problems were at the SST to S6T level. Mean score for academic problems was approximately S3T, mean for career problems was close to SOT, substance abuse mean score 4ST.

Effect size analysis revealed significant practical differences between the CC group and the two comparison samples (NC Student non-clinical and SS CAS standardisation sample) on six of the nine scales (AN, DP, SI, SE, IP, FP). In all instances effect sizes indicated that the CC group's scores were higher (ie more problematic) than the NC or SSs.

Effect size calculations revealed few practically significant differences between males and females ($d < .23$); the exception being anxiety, with female clients reporting higher levels of anxiety ($d = .36$).

No significant differences among racial or ethnic groups were found.

Effect size analysis revealed some practical differences between undergraduate and graduate students with regard to IP and AP; in both cases undergraduates reported more problems.

Comments:

The religious background of the students concerned differs from that of students at most colleges and universities and the study included few ethnic minority participants – therefore this potentially limits the generalisability of the findings.

Authors: Nelson KL.

Year: 2003

Title: Effects of crisis intervention on the retention of students at a large urban university

Aims:

To explore the relation between the retention rates of students who utilise crisis intervention services at a university counselling centre and students who attend the same university but have not utilised crisis intervention services

Participants:

410 students enrolled at an American university. Clinical group: 205 participants who had utilised crisis intervention services at the university counselling and psychological services; 29% male, 71% female; 15% African American, 10% Asian, 56% Caucasian, 13% Hispanic, 6% International; mean age 26 years (age range 17-54)

Practitioners and training:

No information provided

Intervention and control:

Non-clinical comparison group: 205 students were identified from the academic database to create a matched control group. 30% male, 70% female; 16% African American, 10% Asian, 56% Caucasian, 13% Hispanic, 5% International; mean age 26 (age range 18-48)

Measures:

Information gathered from archival academic and clinical records.

Method:

Use of archival data.

Findings:

The type of crisis most commonly cited as the primary reason for a student to seek crisis services was a stress reaction (30%), followed by depression (22%), suicidal threat (16%) and panic attack/anxiety (8%).

No differences in the proportion of students graduating were found between those students receiving crisis intervention services, students receiving crisis intervention plus additional counselling services and those receiving no crisis or counselling services. Students receiving crisis intervention services enrolled for the same number of semesters as the non-clinical comparison group (17 and 18 respectively).

Comments:

This study's findings appear to support both retention and crisis intervention models which emphasise the importance of connecting services and supportive environments. Students in crisis who received supportive services remained in school at the same rates as others, suggesting crisis intervention services may be a helpful tool in the university's efforts to retain and graduate students.

However there are a number of methodological problems which need to be considered in interpreting these results:

1 Students identified for the academic matched control group were not users of counselling services at the university counselling centre. It is possible that they experienced some forms of crises themselves and/or sought psychological support from another resource.

2 This study also experienced difficulties with determining differences between 'drop-outs' and 'stop-outs', raising potential concerns about the consistency of incident reporting and the

- ability to accurately track academic progress using the academic database.
- 3 It was difficult to assess the consistency of incident reporting for the study.
- 4 There were a number of inconsistent, missing data points.
-

Authors: Newman ML, Greenway P.

Year: 1997

Title: Therapeutic effects of providing MMPI-2 test feedback to clients at a university counselling service: a collaborative approach

Aims:

To investigate whether participants who receive MMPI-2 feedback, as compared with the controls who receive attention-only during the experimental time frame, would report a significant decrease in symptomatic distress and a significant increase in self-esteem

Participants:

60 clients from a university counselling service, Australia. 23 % male, 77% female. Mean age 30.

Practitioners and training:

Not specified

Intervention and control:

Participants randomly assigned to group. The experimental group received MMPI-2 feedback and the control group received attention-only and delayed test feedback

Measures:

Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen and Kaemmer, 1989); Self-Liking/Self-Competence Scale (SLCS; Tafarodi and Swann, 1995. Rating of Self-esteem); Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1983); The Self-Consciousness Inventory (SCI; Fenigstein, Scheier and Buss, 1975); Assessment Questionnaire-2 (AQ-2; Finn, Schroeder and Tonsager, 1995).

Method:

In both groups, at Time 1 the researcher interviewed the clients for 30 minutes, discussed the clients' problems, described how the psychological testing would proceed, asked what questions the client would like answered from the assessments, and completed all the measures (except the AQ-2). At Time 2, two weeks later, the experimental group discussed their MMPI-2 test results with the researcher – according to Finn and Tonsager's (1995) model – and completed the SCL-90-R, the Self-Liking/Self-Competence scale and the AQ-2. The control group met the researcher briefly to clarify or add questions to be considered in the assessment. Time 3 was approximately 2 weeks later. In the experimental group, each client was mailed the same measures as completed at Time 1. In the control condition, clients met with the researcher, completed the measures, and then received MMPI-2 feedback.

Findings:

For the SCL-90-R there was a significant effect of time ($p < .09$) and group x time interaction ($p < .01$). Those in the experimental group showed a decline in their levels of symptomatic distress compared with the control group. There was no significant difference between the control and experimental groups at Time 1 or Time 2, but at Time 3 those in the experimental group were less symptomatic ($p < .01$). For self-esteem there was a significant interaction between group and time ($p < .01$), controlling for an initial difference between the control and experimental groups. There was a significant improvement demonstrated by the experimental compared to the control group: at Time 3 the experimental group had a level of self-esteem that was within the normal range for non-client university students, however the control group presented a non-significant decrease over time. Using a subscale of the AQ-2, the Positive Relationship With the Examiner scale, whether there was a difference between Time 2 and Time 3 by group was examined. It was found that there was no significant difference between groups, thus benefits of feedback is not a function of feeling liked/accepted by the researcher. Neither the AQ-2 subscales or General Satisfaction score were correlated with self-esteem at Time 1 or Time 2, or an overall drop in symptomatology. There was no significant relationship between private or public self-consciousness and symptomatology or self-esteem. There was no significant relationship between the MMPI-2, the College Maladjustment scale, and change scores in self-esteem or symptomatology at

Time 2 or Time 3. There was no significant relationship between type of problem and SCL-90-R or self-esteem change scores. Thus the experimental group reported an increase in self-esteem and a decrease in symptomatology by Time 3, whereas the control group did not.

Comments:

This is a well conducted piece of research which provides further evidence for the efficacy of psychological assessment, specifically feeding back MMPI-2 test results, as an effective therapeutic intervention for counselling centre clients .

Notwithstanding the overall high quality of the study's methodology there are certain factors to be considered:

1 Although the clients were randomised into the two groups, the control group commenced the study with higher levels of self-esteem. This was controlled for in the analysis. The authors suggest this may be due to small sample sizes and sample selection may not have been fully randomised, with the assessor responding to client needs and allocating to the experimental feedback condition.

2 There was only one assessor used in the study, meaning that the effectiveness of the intervention of providing feedback could be confounded with 'assessor' effects. In addition, the assessor was not blind to participant group membership.

3 The study n was small (60) and there were large SDs in some of the Lachar classifications, meaning that the authors were unable to check for the effect of code type on therapeutic change.

Authors: O'Hara MM, Sprinkle SD, Ricci NA.

Year: 1998

Title: Beck Depression Inventory-II: college population study

Aims:

To derive normative data for the BDI-II on college populations

!Participants:

152 participants from a counselling centre group: 30% male, 70% female. Mean age 21, SD 4.1. 87% Euro-American, 8% African American, 4% 'Other'. 152 participants in a comparison group: 43% male, 57% female. 5% did not complete demographics . Mean age 20, SD 2.6. No race information collected

!Practitioners and training:

N/A

intervention and control:

N/A

Measures:

Beck Depression Inventory-II (BDI-II; Beck, Steer and Brown, 1996).

Method:

Counselling centre sample: students completed the BDI-11 as part of their intake paperwork prior to meeting their counsellor.

Comparison group: participants were from two classes known to draw from a large number of majors. Participants completed the measure in class time.

Findings:

The mean score for the counselling centre sample was 15.3 (SD 11) and for the comparison group 8.8 (SD 8.1); there was a significant difference between the groups ($p < .0001$). The two samples differed on 11 of the 21 test items, with the largest differences on items relating to Sadness, Loss of Pleasure and Self-dislike. The female scores were higher (15.8; SD 11.6) than the male scores (14.0, SD 9.5), but not significantly ($t = 0.97$, $p = .03$, ns). Only on the item related to Crying were statistically significant scores found, with women reporting more tearfulness than men. The student counselling sample total scores are reported as being substantially lower than Beck et al (1996) clinical sample of 500 outpatients (22.5, SD 12.8)

Comments:

The main aim of this paper was to provide student normative data rather than to compare the severity of the two populations. These findings should be viewed with caution as they are not derived from a systematic attempt to test for population differences.

Authors: Pahkinen T, Cabble A.

Year: 1990

Title: A five-year follow-up study of psychotherapy. The stability of changes in self-concept

Aims:

To examine the stability of changes in self-concept over a five-year follow-up period

Participants:

229 students attending the Student Health Foundation's psychotherapy services, at five Finnish universities. Control group: 201 students attending as dental care patients at same student health services

Practitioners and training:

27 psychologists and psychotherapists

Intervention and control:

Experimental: dynamically oriented psychotherapy

Control: dental care patients

Measures:

Beck Depression Inventory (BDI; Beck, 1961); unvalidated measures measuring (a) symptoms, (b) client's self-assessment of progress, and (c) self-concept - above measures combined; LISREL multiwave, multivariable models (Joreskog and Sorbom, 1979).

Method:

Measures completed at the outset of therapy, at six months, two years, at conclusion of therapy and at five-year follow-up. Analysis consisted of change profiles and using LISREL multiwave, multivariable models (Joreskog and Sorbom, 1979).

Findings:

Statistically significant changes occurred at the six-month point from the beginning of therapy and the amount of benefit remained stable up to the five-year follow up. The profile of the control group remained unchanged.

Comments:

There are major limitations to this study:

1 The overall level of reporting is poor.

2 Characteristics of the patients are not described in the method but an assertion is made in the discussion that the experimental and control group were homogeneous in regard to 'certain background variables'. There is, therefore, a potential for confounding/selection bias that cannot be checked by the reader.

3 The representativeness of sample cannot be established as no information is given on how the sample was derived from the source population.

4 Basic descriptive data is not provided. In conclusion, the results cannot be treated with confidence. Strengths of the study are that a 'control' population was utilised, and the clients were followed up over a five-year period with a (surprising for student population) 75% follow-up rate.

Authors: Pledge DS, Lapan RT, Heppener PP, Kivilghan D, Roehlk HJ.

Year: 1998

Title: Stability and severity of presenting problems at a university counselling centre: a six-year analysis

Aims:

1 To establish whether the presenting problems of students attending a university counselling centre are becoming more severe

2 To see if history of prior counselling may identify a specific group of individuals who present with problems that are more 'serious' than has been in the past within university counselling settings

Participants:

2,326 students at a large midwestern university who requested services at the university counselling centre. Age range 14-52, mode 20; 66.2% female, 33.8% male. Caucasian Americans 88.8%, African Americans 4.4%, Asians 2.5%, Hispanics 1.9%, American Indians 0.7%. 76.6% were single, 54% had had previous therapy; 38% had used or were using prescribed medication. US study

Practitioners and training:

Not specified

intervention and control:

N/A

Measures:

Computerized Assessment System for Psychotherapy Evaluation Research (CASPER) (McCullough and Farrell, 1983); 98 multiple-choice questions assessing 62 complaints associated with 13 problem areas including physical symptoms, mood problems, thought problems, behaviour changes, life tasks, leisure time, interpersonal problems, social support, family relations, sexual behaviours, self-concept, stressors and life satisfaction.

Method:

Extended the work completed by Heppner et al (1994) using archived individual item responses obtained from clients who routinely completed the Computerized Assessment System for Psychotherapy Evaluation Research (CASPER) over a six-year period.

Findings:

1 There were no significant differences between the sample groups over the six-year period between the composite items (identified by Heppner et al, 1994) of chemical problems, mood problems, thought problems, suicide problems, interpersonal problems, and the global rating of severity.

2 There were no significant differences in clients' subjective rating of distress in relation to any of the identified demographic variables (age, gender, ethnicity, use of medication, relative's history of alcohol abuse or mental illness, history of previous therapy).

Comments:

The author concludes that the findings indicate that the severity of presenting problems has not become worse, but rather has stabilised at a high level of severity. A strength of this research is its good internal reliability, in that it used routine data collected for all clients over a relatively long period (apart from some missing data in the first two years which was explained and justified). The study's external validity and comparability of data, is compromised as the CASPER system is one that is used only in the USA, at a single university and therefore has limited generalisability to UK services. NB: the paper scored below the threshold for quality due to the lack of data reported. However, the thesis of the same work scored above the threshold, and has therefore been included.

Authors: Ramsey-Wade CE.

Year: 2005

Title: On being a university student in therapy: exploring the process of therapy and its impact on the process of learning

Aims:

To explore further the experience of undergoing therapy, as well as the experience of undergoing therapy and a university degree at the same time

Participants:

Six participants with experience of undergoing therapy while studying for a university degree at a UK university. UK study

Practitioners and training:

Not specified

Intervention and control:

Therapy provided by the university counselling centre. No control

Measures:

The interview material was analysed using IPA (Smith, 1996, 1997). The output consists of themes, conveyed in a narrative style; these include pre-counselling experiences, driving factors for seeking support, experiences of waiting lists, change processes, personal and academic effects of therapy, and post-counselling experiences.

Method:

The author used semi-structured interviews to explore client experience in relation to areas of research interest. Semi-structured interviews were used as the author was seeking specific information that would not have arisen naturally in a looser, free-flowing conversation. Conversations with participants were limited to approximately half an hour. The interview schedule was based on Howe's (1993) book *On Being a Client*. The questions were slightly amended to address the experience of student clients and the author added a few closing questions for ethical reasons.

On meeting participants, the researcher read through the consent form, informed them of her contact details and offered a de-briefing sessions after the interview. Participants were assured of their right to withdraw, the confidential nature of the interviews, and that their anonymity would be maintained. The interviews were carried out in an informal and conversational style to put the participants at ease and to facilitate articulation of their stories. The author followed the interview schedule/guide loosely, in that while she made sure each question was asked in the interview, she did not use the same words to pose the question but adapted them to fit the emerging style of the interaction.

The interview material was analysed using Interpretative Phenomenological Analysis (IPA, Smith 1996, 1997).

Findings:

- 1 The reasons for participants seeking counselling included transitional or developmental changes; the stress of university life; desire for personal development.
- 2 Outcomes of counselling included increased sense of control and reductions in stress and anxiety.
- 3 Some participants came to therapy with high levels of distress and experienced therapy as reducing this, enabling them to stay on their courses.
- 4 All participants reported that they were satisfied with their therapy.
- 5 Factors important to outcomes included practical aspects of therapy sessions (availability, timing and frequency of appointments) as well as feeling understood and a strong relationship with the therapist.
- 6 Personal benefits of therapy reported included increased insight, self-acceptance and self-confidence.
- 7 Therapist qualities/actions such as separateness, normalising, accepting clients' experiences, listening and responding were reported by participants to be linked with change factors.
- 8 Participants reported few hindering processes; the main one was lack of warmth from the therapist.

Comments:

The research design was appropriate to the aims of the research - the use of semi-structured interviews to explore client experience. The author supplied details of the rationale behind the recruitment strategy, together with detailed criteria linked to ethics and practicalities. The interview schedule was piloted extensively, safety and place were considered and all procedures articulated in detail. There is acknowledgement of the dual role of student counsellor and research (but not the counsellor of the actual participants used). There is lots of reflecting on the research process. Details of ethical approval are supplied. With regard to data analysis, there was a detailed rationale for using IPA. There was good detail on the method of analysis, showing care and attempted participant validation. The aims of the study were very broad, meaning that there was not a particularly clear statement of findings: the summary of the results presented in the discussion was somewhat meandering. Implications for service managers, practitioners, researchers and students are articulated, and limitations discussed.

Authors: Rice RE.**Year:** 2002

Title: Assessing agentic and communal traits in suicidal outpatients: a potential model for predicting typologies, severity, and treatment outcomes

Aims:

To investigate the use of trait-based agency (experience as an autonomous individual) and communion (existence as a member of society) in conjunction with inter-psychic/intra-psychic states to differentiate severity and predict treatment outcomes

Participants:

120 outpatient suicidal students seen at two mid-Atlantic university counselling centres being administratively tracked by the centre. Mean age 22.17 years, SD 4.30. 58.8% female, 41.2% male. 69% Caucasian, 3% Hispanic, 21% Asian, 3% African American, 5% Other. 90% described themselves as single or not in a committed relationship. US study

Practitioners and training:

Not specified

Intervention and control:

No control group. Intervention was routine counselling provided at the centre. The suicidal clients who comprised the study sample were administratively tracked by the centre

Measures:

Suicide Status Form (SSF; Jobes, Jacoby, Cimboic and Husted, 1997); Personal Attributes Questionnaire (PAQ; Spence, Helmreich and Stapp, 1974).

Method:

All data was collected from two mid-Atlantic university counselling centres during the academic years 1999-2000 and 2000-2001. Study data were a subset of the information routinely collected by clinicians. All data were anonymised. At intake, clients who indicated on a symptom checklist that current suicidal thoughts, feelings or behaviours were a serious/severe problem were automatically tracked. Clients who indicated that suicidal thoughts, feelings or behaviours were a slight/moderate problem were asked to rate their overall risk of suicide. Clients endorsing a rating greater than 1 were placed on the Suicide Tracking System. Clients were tracked until they resolved their suicidality, were hospitalised or referred out. Suicidality was operationally defined as 'resolved' after three consecutive weeks of non-suicidal thought, feelings and behaviours.

findings:

- 1 Agency, communion, severity of suicidality, and inter/intrapsychic measures failed to predict whether or not a client remained in treatment or dropped-out.
- 2 Clients with a high degree of agency had less severe suicidality.
- 3 Agency was notably moderated by communion when predicting number of session to resolve suicidality.
- 4 The greater degree to which suicidality was about the self or others was associated with longer durations of treatment.
- 5 Communion and gender were not predictive of severity or duration of suicidality.
- 6 Clear typologies of suicidality were not evident in this sample.
- 7 Trait-based Agency emerged as the strongest variable in determining severity and treatment resolution. (PsycINFO Database Record (c) 2003 APA, all rights reserved).

Comments:

More pertinent characteristics on the sample – suicidal history, psychopathology, co-morbidity – could have been reported by the author. This information had been collected by the clinician version of the SFF.

Archival data were used and comprised the source population of all students who were being routinely tracked for suicidality, therefore lending high external validity to the study. One factor of this study compromises internal validity: an N of 120 students is given in the method section. However, in the results, sample sizes of eg 98 are reported. The author does state that there are missing data for a few clients but this does not account for such a drop. Missing data issues should be explained in a footnote to the results tables to improve reporting and ease readability.

A strength of the study was the use of both clinician-rated and self-report measures – the results of which converged. It is important to have an assessment schedule that allows both practitioner and client to rate the same items. The study has provided insight into the length of suicidal crises and personality factors that may impact crisis resolution. However, the study is marred by unaccounted-for, missing data which raises questions regarding internal validity. For this reason, the conclusions to the study should be treated with caution.

Authors: Rickinson B.

Year: 1997

Title: Evaluating the effectiveness of counselling intervention with final-year undergraduates

Aims:

To explore the effectiveness of a short-term intervention model with final-year students in reducing psychological distress and increasing students' ability to successfully complete their degree programmes

Participants:

Clinical Group: 43 final-year undergraduate students at a UK university attending the

university counselling service. Control group: 65 final-year, cross-faculty, undergraduate students who rated any of the 90 items on the SCL-90-R at a severity of 2 or above. Age and gender of two groups not given

Practitioners and training:

One counsellor using psychodynamic principles incorporating cognitive behavioural strategies. Information on training and experience not given

Intervention and control:

Clinical Group: short-term counselling intervention based on psychodynamic principles incorporating cognitive-behavioural strategies. Control group: no counselling or other medical professional help

Measures:

Symptom reduction on the Symptom Checklist 90-R (Derogatis and Cleary, 1977).

Method:

A quasi-controlled study. Compared the psychological distress of final-year students attending a student counselling service over a two-term period, with a control group drawn from final-year students who did not attend the counselling service. The clinical sample completed the SCL-90-R prior to their first therapy session and at the fourth session. The control group completed the measure at the beginning or end of a lecture, with the second measure being administered four weeks later by post to consenting students.

findings:

SCL-90-R GSI change scores were clinically significant in clinical group (Diff 12.7, $p < .001$), change scores negligible in control group (Diff 1.9, $p = 0.01$). GSI T scores of individual clients showed that 84% of clinical group showed 'marked improvement', compared with none in control group. Differences in change from test 1 to test 2 between the two groups was highly significant on all dimensions ($p < .001$) apart from 'Paranoia and Hostility' ($p < .01$).

Comments:

Strengths of the research are that an attempt was made at establishing an equivalent control group and a high completion rate of post- (session 4) therapy measures for selected clients in clinical group (83%). External validity limited as the selection criteria (eg final-year students) only made up just under 50% of those attending student counselling services and only one therapist was involved in the research. Internal validity is limited as clients were not randomised to the control group of students, but rather were students who matched the intervention group as closely as possible according to inclusion criteria and scores on SCL, and were not from the same population. There was also low completion rate of post-therapy measures for the control group (50%). A significantly higher percentage of the clinical group (79%) had a baseline SCL-90-R GSI T score higher than 63, indicating psychiatric illness, compared with the control group (51%), together with a higher GSI mean score. Demographic differences between the two groups were not addressed.

Authors: Risler RB.

Year: 2002

Title: A phenomenological investigation of psychotherapy helpfulness as experienced by college students

Aims:

To investigate what college students perceive, understand and experience as helpful in psychotherapy

Participants:

9 clients from two college counselling centres, 3 male, 6 female. Median age 21, age range 18-21 years. Minimum number of sessions attended was 20. Some clients had been in therapy previously. Caucasian American 5, Caucasian from South Africa 1, Pacific Islander 1, Asian-Indian 1, Portuguese 1. Presenting problems (not mutually exclusive): depression 8, attempted suicide 2, relationship issues 5, family issues 1, self-esteem 4, self-exploration 1, academic concerns 1, anxiety 1. All participants except one had a religious affiliation

Practitioners and training:

The researcher conducted and transcribed the interviews. The author and three other graduate students (all female, aged 39-50 and European American) served as judges. A further graduate student and a professor served as auditors

Intervention and control:

No intervention and no control group

Measures:

A demographics form. Open-ended interview questions about their current experience in counselling, what they experience as helpful, and to describe a critical moment in therapy. Consensual Qualitative Research Approach (CQR, Hill et al, 1997).

Method:

Directors at two counselling centres were telephoned and asked to invite clients to participate. Participants were sent a sample interview questionnaire, so they could think about the questions and perhaps prepare some notes. The interview was a one-hour, face-to-face audiotaped session. The data was analysed using the Consensual Qualitative Research Approach (CQR, Hill et al, 1997). Prior biases of the judges were first noted. The four judges then independently analysed the data before coming to consensual conclusions. The auditors then reviewed the consensual conclusions, suggested any changes, and the judges then considered these modifications to develop a final version of results.

Findings:

Four major domains of therapy helpfulness emerged: therapist variables, therapeutic relationship, client variables, and specific techniques. Within these domains were a number of sub-categories. A category was considered 'General' if it applied to all cases, 'Typical' if it applied to 5-8 cases, and 'Variant' if it applied to 2-4 cases. In terms of the domain Therapist Variables, 'personality' was typically mentioned, and 'gender/age', 'role model/mentor' and 'authenticity/therapist disclosure' were variantly mentioned. For the domain Therapeutic Relationship, generally mentioned was the category 'joining/collaboration/meeting client where they are'; typically mentioned were 'egalitarian', 'boundaries', 'safe haven', 'trust', 'acceptance', and 'feeling heard and understood'; and variantly mentioned were 'right fit', 'parental role/transference', 'flexibility/availability', and 'feeling supported'. For the domain Client Variables, all the categories of 'realising the need for help and allowing someone to help', 'motivation to learn about self, grow and change', 'authentic disclosure/truth telling', 'catharsis' and 'talking' were mentioned variantly. For the domain Techniques/non-directive, the category 'guided exploration leading to insight' was mentioned generally, while variantly mentioned were the categories of 'silence', 'reflective listening', 'humour', 'timing', 'normalising', and 'instillation of hope'. For the domain Techniques/directive, typically mentioned was the category 'behavioural techniques', while variantly mentioned was 'suggestions/advice' and 'confrontation'.

Comments:

A pre-requisite for recruiting students was that they were insightful and engaged in the therapy process, which introduces a bias into the sample. Furthermore, therapists approached students, so there will be a bias here in the type of client that the therapists deemed appropriate to approach. Participants must have had at least six therapy sessions, although there is no mention of why this cut-off was used. Therapists pre-screened clients to determine level of interest - no information was given regarding this process/procedure. Participants were paid for their time - no account taken of the effect this might have on those who chose to participate, or the type of results this would lead to. The interviewer observed verbal and non-verbal behaviour, the participants' mood, and the ability to develop a positive rapport - very subjective. A weakness is that the researcher was also the interviewer, which has introduced bias into the interview eg leading the clients' responses. The sample size is small, though this is typical of qualitative research. A strength is the collaboration of the team of four judges, which helped to eliminate bias in the analysis.

Authors: Robinson PD.

Year: 1996

Title: Premature termination in a university counselling centre: a survival analysis

Aims:

To illustrate the patterns of premature termination in a university counselling centre and to identify client, therapist, and process characteristics related to the incidence of premature termination

Participants:

139 participants were randomly selected students from a population of 293 valid cases at the

University of Texas, San Antonio Counselling Centre for individual counselling. Mean age 25.73 years, SD 6.11. 27.3% males, 72.7% females. 58.3% were Anglo Americans, 26.6% Mexican Americans, 7.2% Asian, 2.9% African American, 0.7% Native American, 4.3% Other. Mean severity was 2.71, SD 0.62. US study

Practitioners and training:

8 therapists. No information on training or qualifications. Two were interns

Intervention and control:

Time-limited counselling: 12 sessions maximum, provided at the centre. No control group

Measures:

Archival data were utilised from the counselling centre's clinical forms and computer records.

1 Premature termination: information was collected on the dates and frequency of sessions to enable measurement of this variable.

2 Income: income for each student was indicated by the median family income of each zip code area.

3 Severity: severity of client's presenting problem was classified by the counsellor after the first session on a Likert scale of 1-5 (higher scores indicating greater severity).

4 Process variable: client-therapist agreement on presenting problem. Agreement between client's reported reason for coming to counselling and counsellor's index of concern code.

Method:

Archival data for this study were collected from the University of Texas at San Antonio's counselling centre. All students presenting at UTSA's counselling centre for the 1993-1994 academic year were considered for inclusion in the study. Valid subjects were those who had had individual counselling for interpersonal and intrapersonal concerns, or academic counselling lasting five or more sessions (assumption made: had other interpersonal or intrapersonal problems in addition to academic). Students who presented with career concerns, academic concerns treated with four sessions or less, or who had received group/couple counselling were excluded.

Premature terminations was defined as a unilateral decision by the client to terminate counselling by failing to return for a scheduled appointment. Successful termination was defined as a termination during a scheduled appointment.

Descriptive and predictive models of analyses were provided by the use of survival analytic techniques.

Findings:

1 The only covariate identified as influencing premature termination is the client demographic variable income. The higher the income, the greater the risk of premature termination, and the lower the income, the less likely the client is to terminate prematurely from counselling.

2 None of the client, therapist, or process variables studied is predictive of successful termination.

3 Patterns of general termination and premature termination are similar.

4 There is a high initial rate of termination at the beginning of therapy which declines after a few sessions.

5 Patterns of general termination have a subsequent increase in termination after the fifth session, whereas premature termination has no subsequent increase.

Comments:

The client and therapist factors derived from the archival data were quite limited. The only covariate identified as having an impact of premature termination was income as indicated by the median family income of each zip code area. This is a rather crude operationalisation.

Several well-known factors impacting on premature termination – client's level of pre-treatment symptoms, client-therapist alliance, client and counsellor's attitude and expectations – could not be examined in this study, relying solely on archival data. This study offers some useful findings with regard to patterns of termination. It was found that there were high initial rates of termination at the beginning of therapy which decline after a few sessions. This finding indicates that the beginning of therapy is the riskiest period for clients terminating.

The clinical implication is that the optimum point of intervention to prevent premature termination would be at or before the intake session. Possible interventions suggested by the author are pre-therapy preparation, written contracts and explicit treatment plans.

Although it was not demonstrated that the sample was representative of the source population (569 students presenting for counselling), the author did compare the distribution

of demographic factors between the study sample (n=139) and the valid sample (n=293), thus providing a check that the random sample was not substantially different from the total sample from which it was derived.

The primary weaknesses of the study are connected with the limitations of archival data on which this study was based. The use of archival data is highly suited to exploring patterns of premature termination but not so suited to exploring determinants of premature termination.

An additional limiting factor concerns the time-limited nature of the counselling provided at the centre (12 sessions). The fact that the therapy was time limited could have had a pre-emptive effect on patterns of termination.

Authors: Scholl MB.

Year: 1998

Title: College students' preferences for counsellor role: differences as a function of selected young adult identity development factors

Aims:

To investigate the relationship between factors adopted from Chickering and Reisser's (1993) Seven Vector Model of Young Adult Identity Development (autonomy and capacity for mature relationships) and preferences for the four counsellor role factors (ie approval-seeking, advice-seeking, audience-seeking, relationship-seeking) identified by Berzins (1971b)

Participants:

152 traditional age (17-24 years) personal counselling clients enrolled at six four-year post-secondary institutions. Age range 17-24 years; 53.3% were 18 years old. 39.5% male, 60.5% female. 48.7% were Black/African American, 2.6% Hispanic, Latino, Mexican American, 0.7% Asian/Pacific Islander, 47.4% White/Caucasian, 0.7% Other. 36.8% had had previous experience of counselling

Practitioners and training:

Not specified. Counsellors at participating institutions had various levels of expertise

Intervention and contro:

Personal counselling provided at the centre. No control group

Measures:

Iowa Developing Autonomy Inventory (IDAI; Hood and Jackson, 1985c); Mines-Jensen Interpersonal Relationships Inventory (MJIRI; Hood and Mines, 1986c); Psychotherapy Expectancy Inventory - Revised (PEI; Rickers-Ovsiankina, Berzins, Geller and Rogers, 1971); Demographic Questionnaire.

Method:

After the client had given informed consent and had initial contact with the counsellor, the Student Information Form (comprising the four assessment measures) was administered. Participant confidentiality and anonymity was maintained at all points. Order of assessment instruments was randomised but the demographic questionnaire was always presented last. The forms were administered by either a counsellor or a member of the centre's support staff. The researcher instructed staff members as to the proper procedure for recruiting participants and administering the assessment instruments. The staff member administering the form asked whether the participant was between 17-24 years. Individuals outside that age range were excluded from the study.

Findings:

1 Tolerance for Diversity and Independence from Parents were negatively related to preferences for Approval.
2 Interdependence and Independence from Peers were positively related to preferences for Audience.
3 Preferences for Advice and Relationship were strong, on the average, and unrelated to identity development variables.
Results partially support the significance of the relationship between levels of identity development and young adult client preferences for counsellor role.

Comments:

The study is promising – the examination of young adult identity development factors in

relation to preferences for counsellor role could have important therapeutic implications for flagging up potential risks for rupture in the therapeutic alliance. Improvement of the therapeutic alliance resulting from an awareness of client preferences could prevent some instances of premature termination.

However, a major weakness of the study concerns sample representativeness. No information is given on the size of the source population, the number of clients approached or the number of clients who declined to participate. The study is certainly prone to selection bias and, due to lack of clarity in reporting, it is difficult to determine the precise nature of the bias and the impact this has on the study's findings.

Authors: Segal DL, Murray EJ.

Year: 1994

Title: Emotional processing in cognitive therapy and vocal expression of feeling

Aims:

To test the hypothesis that psychotherapy is more effective than a pure expression of feelings in the treatment of unresolved traumatic experiences

Participants:

60 undergraduate college students at a US university. Age not specified. 17 male, 43 female

Practitioners and training:

Practitioners were four female and three male graduate students in clinical psychology who had completed a graduate course in cognitive therapy

Intervention and control:

In both conditions the participants had 20-minute, audiotaped sessions on four successive days. **Intervention:** in the cognitive therapy condition, participants talked to a therapist.

Control:

In the vocal expression condition, participants were alone and spoke to the tape recorder. In both conditions participants were asked each day to express their deepest thoughts and feelings about the traumatic experience for the entire 20 minutes

Measures:

Outcome measures: Impact of Event Scale (IES; Horowitz, Wilner and Alvarez, 1979); Negative Thoughts Index (NTI; unpublished measure developed for purposes of the study); Post-Experimental Questionnaire (PEQ; unpublished measure); Process Measures: Positive and Negative Affect Schedule (PANAS; Watson, Clark and Teliegen, 1988); Content Analysis System (CAS; unpublished measure).

Method:

Participants were randomly assigned to either cognitive therapy or vocal expression groups. 30 subjects in each group. Process measures were obtained before and after each session. A battery of outcome measures was administered before and after the treatment and at one-month follow-up by mail.

Findings:

1 Both procedures were equally effective in reducing negative mood and negative thoughts: there were no significant differences between the groups in improvement on the IES and NTI post treatment or at follow-up.

2 Cognitive therapy was somewhat more effective on the Post Experimental Questionnaire; the cognitive therapy group reported feeling significantly more positive about their topics post treatment.

3 The arousal of negative affect was inversely related to positive outcome.

4 The reduction of negative affect and, particularly, negative thoughts was positively related to outcome.

Comments:

This is an interesting study: the findings indicate that both cognitive therapy and vocal expression (talking into a tape recorder) were similarly effective in helping to process a traumatic experience. This would suggest that common factors are responsible for any observed improvement (eg expectation of help, the healing situation common to both conditions, exposure to traumatic memories) rather than the specific components of CT. This has important implications for the design and delivery of counselling interventions.

However there are several limiting factors that should be considered. There is limited information concerning the characteristics of the study's participants. Only information on gender is given. Characteristics such as age, pre-treatment symptomatology, co-morbidity, presence of diagnoses, social support, previous treatment, are all potentially confounding factors in the comparison of a treatment and placebo condition. The reporting is limited: standard deviations are not reported in the main results, meaning that there is no sense of the distribution of the data, which hinders comparison of the two groups. Exact probability levels are not reported which would have added clarification to observed significant differences. The sample is highly selective: 10 per cent of the source population with insufficient detail on how the selection criteria were used. It was a requirement of the selection criteria that students had to be 'still distressed by the event' yet there is no operationalisation of distress. The lack of experience of the therapists could be partly accountable for the null results. All had completed a graduate course in cognitive therapy but all were graduate students. Author allegiance is a potentially complicating factor: the second author supervised in the study and designed the graduate cognitive therapy course which the study therapists had completed.

Authors: Smith JJ, Subich LM, Kalodner C.

Year: 1995

Title: The transtheoretical model's stages and processes of change and their relation to premature termination

Aims:

1 To investigate premature termination from counselling by examining clients' stages of change and use of processes of change as they begin counselling

2 To identify clients who were more likely to terminate prematurely from therapy by investigating the stages and processes of change and premature termination

Participants:

74 clients of a counselling centre at a large midwestern state university. Mean age 24.4 years, range 18 to 44 years, SD 5.2. 64% women, 36% men. Clients were mostly Caucasian

Practitioners and training:

Not specified

Intervention and control:

No control group

Measures:

Stage of Change Scale (SCS; McConaughy et al, 1983; Prochaska, 1984); Process of Change Questionnaire (PCQ; Prochaska, DiClemente, Velicer and Zwick, 1982).

Method:

Over a data collection period of six months, all students seeking counselling at the counselling centre were asked to participate in the research study following the initial intake. Counsellors asked for the completed questionnaires when clients returned for their first session. If the client attended the next scheduled appointment (session 2) the therapist checked 'N.T.' (not premature termination) on a cover sheet and handed the questionnaire to the secretary. If the client failed to attend the second session and did not reschedule, the counsellor checked 'P.T.' (Premature Termination) on the cover sheet. If the client missed the second session but rescheduled, the counsellor checked 'NT' when the client attended the rescheduled session. All questionnaires were anonymised.

Findings:

A 4x2 chi-square goodness-of-fit test was used to examine the likelihood of premature termination according to the client's stage of change. The results of the study indicated that there were significant differences between the stage of change in which premature and non-premature terminators entered therapy. Greater numbers of premature terminators entered therapy at the pre-contemplation stage and greater numbers of non-premature terminators entered therapy at the preparation and action stages, $\chi^2(3, N=72) = 33.00, p < .0001$. It was also found that non-premature terminators used six processes of change more frequently: consciousness raising ($p < .0001$), self-re-evaluation ($p = .0028$), self-liberation ($p = .0017$), helping relationship ($p < .0001$), dramatic relief ($p < .0001$) and social liberation ($p < .0001$).

Comments:

Knowing a client's stage of change at the beginning of therapy may help predict the likelihood of termination. However, there is not enough information reported on sample selection: no inclusion/exclusion criteria are given for the study, making it difficult to determine the representativeness of the sample. As drop-out from therapy is being examined, the study needs to examine clients' pre-treatment symptom levels. Any observed relationship between stages of change and premature termination could be spurious, that is pre-treatment symptom levels could be impacting on both stages of change and likelihood of premature termination. In addition, no information is given on the counsellors participating in the study – therapist effect could be a powerful variable. The findings regarding processes of change differed from expected according to previous research carried out by Prochaska and DiClemente (1982).

Authors: Stewart DW.

Year: 1996

Title: Predicting counselling service utilisation patterns with the MMPI-2 College Maladjustment Scale

Aims:

1 To examine the extent to which the College Maladjustment Scale (Mt), administered separately from the MMPI-2, could be used to predict counselling service utilisation patterns among first-time clients pursuing personal counselling at a Canadian university counselling centre

2 To provide initial Canadian data on the predictive validity of the Mt scale

Participants:

60 students at the University of Manitoba. Mean age 22.6 years, SD 3.7, range 17-37. 23% male, 53% female; 23% did not specify their gender

Practitioners and training:

Not specified

Intervention and control:

Counselling provided at the college counselling centre. No control (N/A)

Measures:

Maladjustment Scale of the Minnesota Multiphasic Personality Inventory-2 (Mt; Kleinmuntz, 1960, 1961).

Method:

100 consecutive students requesting personal counselling at the college counselling centre were asked to voluntarily complete the Mt scale at intake as part of the package of other materials necessary for registration at the centre. Clients who had received counselling at some earlier point in their academic careers, students with Mt scores over 30 who did not return after intake, and a single student who had an Mt score of 1, were excluded from the study. The final sample of 60 first-time personal counselling clients was tracked administratively regarding their service utilisation patterns during one academic year.

Variables of interest were total number of contacts (scheduled and unscheduled), number of scheduled appointments, number of months of service, number of cancellations, number of no-shows, number of unscheduled drop-in sessions and frequency of contacts (x/month).

Findings:

Mt scale scores were significantly associated with total number of client contacts, number of scheduled appointments, frequency of contacts and number of cancellations.

Comments:

This is a useful study which shows that the Mt scale can significantly predict some important aspects of counselling service utilisation patterns over time. Specifically high scores on the Mt scale were positively associated with more frequent utilisation of services, more total contacts and more frequent cancellations. The Mt score failed to predict client non-return after intake for a sub-group of students with high levels of self-reported maladjustment, and also failed to find any association between Mt scores and total length of service, number of no-shows, and number of unscheduled drop in sessions.

These results, if replicated, could usefully contribute to case management and service delivery planning at university and college counselling centres. These service delivery

implications would be of value to both counselling staff and counselling centre administrators. Staff are often forced to make difficult decisions about which clients they should serve and administrators often have to make difficult policy decisions about which clients are suitable for service at their centre and which may benefit from off-site referral. The study contributes to the research on student counselling as it is set entirely within a student context and provides new information. Existing research is reviewed and the implications of the findings for student counselling are discussed.

The study has the following limitations:

- 1 Lack of reporting on the counselling service and on participant characteristics limits assessment of sample and service representativeness.
- 2 There were some null results; the Mt scale failed to predict client non-return after intake for a subgroup of students with high levels or self-reported maladjustment. It is unclear whether this is due to limitations in the predictive validity of the scale, sampling constrictions, restricted range of scores, clerical errors, or use of the scale apart from the complete MMPI-2. Further research is needed to clarify implications of these null findings.

Authors: Stinson MH, Hendrick SS.	Year: 1992
Title: Reported childhood sexual abuse in university counselling centre clients	
Aims: To examine rates of disclosure of childhood sexual abuse according to mode of enquiry	
Participants: 300 students recruited from a university counselling centre in the southwestern United States. 65% female, 35% male; 83% White, 12% Hispanic, 2% Black, 3% Asian and Other; 10% <18, 64% 19-24, 26% >25	
Practitioners and training: N/A	
Intervention and control: N/A	
Measures: Childhood Sexual Experiences Questionnaire (CSEQ), based on a study by Wyatt (1985) with subquestions added (not subsequently used in analysis). Questionnaire not validated.	
Method: RCT. Sample consisted of three groups of 100. Group 1: recently closed files randomly selected from former clients of the centre, forming the baseline for the number of clients spontaneously disclosing a childhood sexual abuse experience without being formally questioned. Information gained through examination of therapists' notes and clients' intake information sheet. Group 2: completed CSEQ alongside other routine measures at intake. Group 3: completed routine measures at intake (not CSEQ) and were administered the CSEQ verbally by the therapist after the interview part of the intake process.	
Findings: In group 1, 8% reported having been sexually abused as a child, group 2, 35% and group 3, 29%. Chi-square analysis showed that direct questioning, either by written questionnaire or by interview, resulted in a significantly higher reported sexual abuse rate (chi sq 22.04, $p < .05$).	
Comments: Internal validity may be compromised as the CSEQ is not a validated questionnaire, and no psychometric data on the measure is available. However, the authors state that this is the case for all questionnaires of this nature. The prevalence rate for group 1 may be underestimated as the information may not have been recorded in the case notes. The authors point out that rapport may not have been established in group 3, which they state may account for the similarity between group 2 and group 3 (they hypothesised that group 3 disclosure would be higher than group 2). The authors conclude that childhood sexual abuse is shown to be part of the history of approximately one third of university counselling attendees, which has implications for staff training. Also that such information should be obtained routinely to provide more informed helping strategies and treatment plans.	

Authors: Surtees PJ, Wainwright NJ, Pharoah PP.

Year: 1998

Title: A follow-up study of new users of a university counselling service

Aims:

1 To describe the social problems and psychiatric conditions presenting to the UCCA during one academic year, according to both counsellor and student; assessments completed at each new consultation

2 To identify the social, demographic and care factors associated with a change in mental health status between the initial and follow-up assessments, and their relative importance

Participants:

All new students consulting the counselling service at a UK university during a 36-week period. 375 students eligible for entry. All but three (including two academic staff) received a student questionnaire for completion, subsequently returned by 264 students (71%). 33% male, 66% female. 264 students were eligible for follow-up; of these: 107 declined to participate, 31 agreed to participate but did not return their questionnaire, 122 completed the follow-up questionnaire

Practitioners and training:

No details given

Intervention and control:

Routine counselling offered at the University of Cambridge Counselling Service; no details specified. No control or comparison group

Measures:

Initial student questionnaire: section devoted to the assessment of demographic and university status items, care received prior to attending UCCS, current use of medication and level of functioning, social support available, adverse experiences over the previous six months, current assessments of depression and anxiety, current distress levels using GHQ-30 (Goldberg and Williams, 1988). The assessments of depression and anxiety were designed as a development from the short-form scales derived from the formal structured interview methods applied in the National Comorbidity Survey (Kessler et al, 1994).

The follow-up assessment: designed so that every student approached for follow-up received a new personalised questionnaire generated on the basis of information received in their initial assessment. This linkage between initial and follow-up assessments included embedding dates within questions, reflected their fulfilment or otherwise of the 'putative' diagnosis present based upon their initial questionnaire. The follow-up also assessed current support available from a confidant, adverse experiences over the previous year, levels of symptomatic distress (GHQ-30). Students were asked how satisfied or dissatisfied they were with the aspects of the service they had received.

Counsellor form: asked the counsellor to identify the primary reason(s) for consultation, to rate the severity and presence of any (of a short list) of presenting psychological symptoms and problems, and to record the presence of any presenting social problems. Also requested to rate the extent to which each student was impaired by their condition and to record the history of the problems, and the treatment made following the assessment interview.

On study completion UCCS administrative records were consulted to extract details of the number of counselling sessions taken up by all students eligible for the follow-up study.

Method:

Data were obtained from two initial questionnaires: one designed to be completed by each new eligible user of the UCCS at the time of (or close to) their initial consultation during the study period; the second by the counsellor completing the assessment consultation (without any knowledge of the content of the student questionnaire). Psychological morbidity at assessment was rated as: (1) no episode of MDE (Major Depressive Episode) or GAD (Generalised Anxiety Disorder), (2) both MDE and GAD present, (3) only MDE, and (4) only GAD, using the GHQ and 'putative' DSM-111-R diagnostic criteria. About one year after the first assessment, those students who had agreed to participate in a follow-up study were asked to complete a further questionnaire. Students were rated at follow-up as: (1) those who had had no episode of MDE or GAD either at the beginning or at follow up, (2) those with an episode at assessment and improved at follow up, and (3) those with interval, recurrent or persistent episodes (classified as 'mixed').

Findings:

A quarter of those followed up had no episode at initial assessment or follow-up (23.5%), a quarter of those with an initial episode improved, and half the students had a mixed course (either no MDE or GAD at assessment and symptomatic at follow-up, or MDE or GAD at assessment and also at follow-up – these students encompassing patterns of greater symptomatic distress than the other two outcome groups). Female students were 4.6 times as likely as males to meet diagnostic criteria at follow-up. Those clients without a close confiding relationship at follow-up were 3.4 times more likely to meet diagnostic criteria than those with such a relationship. Presence of academic work problems, dissatisfactions with services received, and the perception that they had experienced a great deal of stress in the past year were associated with a poor outcome at follow-up. At initial assessment, 77% of students scored on or above 12 on the GHQ; 53% met 'putative' diagnostic criteria for MAD or GAD; the most frequently cited primary reasons for consultation were symptoms of depression (21.9%), course-related problems (20.6%) and relationship problems (18.1%). Depression and anxiety were rated as the most dominant features of the presenting complaints (62% and 53% of cases respectively).

Comments:

This UK study, providing a follow-up of new users of a university counselling service, offers strong evidence of high rates of depression and anxiety in the student counselling population. This indicates that the counsellors of university students need to recognise students with persisting symptoms of depression and to have available appropriate referral procedures. The study's findings have specific recommendations for training of university counsellors: training should aim to improve counsellor recognition of symptoms and knowledge of the effectiveness of available therapeutic approaches. Training should also include guidance on when to refer students to other professionals.

The following limitations should be considered:

- 1 There were substantial losses to follow-up in this study, though no differences were found between responders and non-responders at assessment, which was when the majority of drop-outs took place.
 - 2 The validity of the results are compromised as the diagnosis for MAD or GAD was made through self-assessment rather than clinical interview, which meant that not all criteria for diagnosis could be assessed.
 - 3 The results are based on a short self-report questionnaire which is likely to have yielded over-estimates of both anxiety and depression.
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Authors: Todd DM, Deane FP, McKenna PA.

Year: 1997

Title: Appropriateness of SCL-90-R adolescent and adult norms for outpatient and non-patient college students

Aims:

To replicate the finding that the SCL-90-R scores of college outpatients are similar to the adult outpatient norms; to examine whether non-patient college students would score more like adolescents than like adults

Participants:

Outpatient sample: 209 undergraduate clients who sought individual treatment at a university-based psychology clinic in the US. Mean age 20.7, range 17-25. Male 27%, female 73%. Non-patient sample: 435 undergraduates. Mean age 19.7, range 17-25. Male 42%, female 58%. Setting: the Psychological Services Centre, the training clinic of clinical psychology doctoral programme, supervised by psychologists

Practitioners and training:

All counsellors in training, in 2nd through 5th years of training. Supervised by faculty/psychologists

Intervention and control:

N/A

Measures:

SCL-90-R (Symptom Checklist-90-R; Derogatis, 1994). Results in GSI which is mean score.

Method:

Outpatient: measure administered as standard intake procedure. Intake consists of 30- to 45-minute interview, the personal history questionnaire, then the measure. Some clients took forms home to complete. Demographics come from PHQ and intake reports.

Non-clinical: measure and demographics questionnaire given to volunteers during a class.

Findings:

Treatment status and gender were significant predictors of GSI (ie significant differences between student patient and non-patient and between males and females). Mean GSI: student outpatient male 0.92 (SD 0.58), female 1.26 (SD 0.61); student non-patient male 0.54 (SD 0.39), female 0.77 (SD 0.54). Compared with normative data: adult outpatients male 1.14 (SD .64), female 1.35 (SD 0.69). Female student outpatient sample similar to female adult outpatient (t -1.5, df 728, d 0.14); male student outpatients slightly less symptomatic than male adult outpatient (t-2.44, df 479, d-0.35, p<.05).

Comments:

The main aim of the study was to assess the appropriateness of SCL adult and adolescent norms for college students. In doing so, the study gave comparative data for the SCL for student patient and non-patient samples and compared them with available normative sample data. It was found that college student outpatients were similar to adult outpatients on the SCL-90-R, but when compared with norms based on unselected community samples, non-patient undergraduates were, like adolescents, significantly more symptomatic than adults.

The following factors should also be considered:

1 A confounding factor in the study was that for the outpatient sample, the measure score may have been influenced by having had the interview first. For example, if the interview made clients more aware of their problems, then their measure scores would be inflated.

2 Although non-patient undergraduates were significantly less symptomatic than outpatient undergraduates, the two distributions overlapped considerably, presenting a high degree of misclassification.

As the main aim of this paper was to provide student normative data rather than to compare the severity of the two populations, these findings are not derived from a systematic testing of population differences and should therefore be viewed with caution.

Authors: Tracey TJG, Sherry P, Albright JM.

Year: 1999

Title: The interpersonal process of cognitive-behavioural therapy: an examination of complementarity over the course of treatment

Aims:

To investigate the research question: Is the curvilinear model of complementarity related to outcome in cognitive-behavioural therapy, even though such aspects are not an explicit part of the intervention?

Participants:

20 clients receiving time-limited cognitive-behavioural therapy at a counselling centre at a private, western, urban US university. These clients were experiencing some disturbance in functioning but were not suicidal or psychotic. Clients were not solely concerned with career issues. 15% male, 85% female. Mean age 27 years, range 18-39 years. 75% of clients White, 25% non-White. 25% of clients had had previous therapy. US study

Practitioners and training:

The therapists were two men with PsyD degrees (10 years of therapy experience each) and two women (one with PhD and one with masters-level degree, 20 years' experience each). All therapists viewed themselves as cognitive-behavioural in orientation

Intervention and control:

Treatment was six sessions of cognitive-behavioural therapy to be completed within an eight-week span. Treatment was divided into three subsets of two sessions each

Measures:

Brief Symptom Inventory (BSI; Derogatis and Spencer, 1982); Target Complaints (TC; Battle et al, 1966); Structured and Scaled Interview to Assess Maladjustment (SSIAM; Gurland,

Yorkston, Stone, Frank and Fleiss, 1972); Brief Hopkins Psychiatric Rating Scale (BHPRS; Derogatis, 1978); Cognitive Therapy Scale (CTS; Shaw, 1984); Interpersonal Communication Rating Scale - Revised (ICRS-R; Strong, Hills and Nelson, 1988).

Method:

All clients requiring treatment at the counselling centre attended a standardised intake interview by agency staff. This interview determined the appropriateness of clients for the project. If appropriate, the study was explained and cooperation solicited. Twenty clients agreed to participate and were randomly assigned to one of four therapists. Before treatment commenced, clients received an independent assessment from a counsellor not participating in the study. Client and assessor generated two problems and the client completed the TC along with the BSI. The SSIAM was then administered. Therapists completed the BHPRS and the TC after the first therapy session. At termination and four-month follow-up the client completed the TC and the BSI and was seen by the independent assessor who completed the SSIAM. Therapists completed the BHPRS and the TC scales at termination. The Interpersonal Communication Rating Scale - Revised was used to measure levels of complementarity.

Findings:

Results of growth curve analyses support the covariation of the U-shaped pattern of complementarity with outcome. More successful dyads demonstrated a pattern of initial high levels of complementarity, decreasing levels in the middle of treatment, and then increasing levels at the end, but not as high as at the beginning. Less successful dyads did not demonstrate this pattern.

Comments:

Important study that provides support for the pattern of complementarity and outcome in cognitive-behavioural therapy. The pattern evidenced in this study was as follows: the client-therapist dyads with the highest outcome showed a pattern of complementarity that started at an initial high level, then dipped, then rose again towards termination (but the rise would be lower than the initial high levels). This study's findings provide support for the role of common factors in therapy: if focus on cognitions and behaviours were the only agents of change in cognitive-behaviour therapy then such a pattern of complementarity between client and therapist would not have been so important in terms of its effects on outcome. The therapeutic implications are also important: therapists can learn to attend to certain critical cues in the process and introduce interpersonal models into brief cognitive-behavioural counselling interventions.

One weakness of the study concerns generalisability of findings. There is no indication of what proportion of the source population (all clients requesting counselling) the sample of 20 clients accounted for. The n=20 is very small, and to know how many clients were excluded is important information. Neither is any indication given of over what period of time clients were recruited. There is the possibility that the sample is highly selective, although the exclusion criteria does not appear to be overly restrictive.

Authors: Turner PR, Valtierra M, Talken TR, Miller VI, DeAnder JR.

Year: 1996

Title: Effect of session length on treatment outcome for college students in brief therapy

Aims:

To investigate the effects of session length (30- and 50-minute 'hour') on therapy success

Participants:

680 students who presented at a USA university psychological centre (CSUS) were eligible to participate in the study. 94 (14%) consented to participate and completed therapy either to their satisfaction or to the maximum eight sessions and were included in the current study. Mean age 26.77 (SD 6.63). 24% male, 76% female. 88% White, 9% Hispanic, 7% Asian, 2% Native American, 1% African American, 6% Other or unknown. US study

Practitioners and training:

Seven therapists (five female, two male) – all were licensed professional staff members (mean age 52.71, SD 9.48). Two marriage, family and child counsellors, four psychologists, one licensed clinical social worker

Intervention and control:

Short-term therapy (ie <=8 sessions) . No control or comparison group

Measures:

College Adjustment Scale (CAS; Anton and Reed, 1991) – CAS includes nine subscales: anxiety, depression, suicidal ideation, substance abuse, self-esteem, interpersonal problems, family problems, academic problems, career problems; Client Satisfaction Questionnaire (CSQ-8; Attkinsson and Zwick, 1982); Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen and Kaemner, 1989).

Method:

CSUS students who requested psychotherapy at the psychological services centre were asked to participate in research that evaluated the effects of therapy session length. Prior to therapy, students completed the MMPI-2 and CAS. Students were then randomly assigned to two psychotherapy treatment groups: 1) SO-minute therapy sessions, 2) 30-minute therapy sessions. Post-therapy students completed the CAS and CSQ.

Findings:

Overall, students were better adjusted after therapy. No significant difference was found between therapy groups with regards to adjustment nor with regards to satisfaction .

Comments:

The sample consisted primarily of young white women and men. Those students who at screening were identified as having problems beyond the scope of brief therapy were excluded. Only 94 students of a potential sample of 680 participated – these factors may impact on the wider generalisability of the findings. The CAS and CSQ post-tests were administered by each therapist after the last treatment session and therefore may reflect a client's liking of the therapist more than actual behaviour or personality change. In addition, there was a preference amongst the therapists for SO-minute sessions (rather than 2 x 30-minute sessions), four out of the seven therapists thought the 30-minute sessions would not be conducive to change, thus therapist preferences perhaps affected the outcomes. The 30-minute sessions also tended to be more directive and could also affect outcome. Clients were aware that the research concerned length of sessions . A follow-up test at 12 or 18 months would have added to this study and given some indication of the durability of change.

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Authors: Untch SU.

Year: 1997

Title: Are college counselling centre clients presenting with more severe psychological problems? A case study of one university counselling centre

Aims:

1 To investigate the severity of presenting problems (problems that students volunteer during their initial counselling sessions) at one college counselling centre

2 To apply a relevant and time-specific conceptual framework – generational differences – to understand these hypothesised increases in the severity of presenting problems

Participants:

269 clients were randomly selected from files at a counselling centre in a private, competitive, residential US University. There are no details on age. 28.6% were sophomores, 28.6% seniors, 19% freshmen and 24.6% juniors. 85.4% White, 5% African American, 6.7%

Asians, 3% Latino. US study

Practitioners and training:

Intern counsellors

intervention and control:

N/A

Measures:

Global Assessment of Functioning (GAF; American Psychiatric Association, 1994).

Method:

A multiple cross-section design, analysing existing client data, was used . A 10% probability sample of 269 randomly selected client intake reports was collected from six academic years (1979-1980, 1982-1983, 1985-1986, 1988-1989, 1991-1992 and 1994-1995). Coding was done in two stages: (1) all demographic information was recorded including intake year; (2)

intake reports were read without knowledge of the academic year in which they were written. The second stage of coding involved reading the intake reports and coding the presenting problems and GAF scores, used to measure severity. Multiple regression was used to analyse these data because the cell sizes were unbalanced by year, gender and presenting problems.

Findings:

Regression analysis revealed:

- 1 There were no increases in the severity of college counselling centre clients presenting problems by academic year for women or men.
- 2 There were no increases by academic year in depressive concerns for women or men.
- 3 There were no increases by academic year in eating concerns for women.

Comments:

The study's use of intake reports and the GAF allowed for collection of retrospective data from a 15-year time span across all types of presenting problems. The fact that the centre director and intake procedures remained constant throughout strengthens the internal validity of the study. The findings suggest that the trend of increasing severity of problems was not supported by this study. The author offers one interesting and challenging interpretation which is that there is no real trend in severity of presenting problems – it is mostly a matter of perception.

However, there are a number of limitations. There are limits to external validity: the data are from one centre only and the sample was homogenous. The rating was conducted by the researcher only, introducing researcher-allegiance bias to the study. However, inter-rater agreement on presenting problems, conducted with a sub-sample was adequate at 78% for GAF and 65% for presenting problems. Another limitation relates to the comparability of these data. The reports were written over the 15-year time span by 80 different counsellors. Counsellor differences were assumed by the author to be randomly distributed but this was not tested, presumably because the information was not available. Of those clients eligible, 15% were randomly selected. After exclusion criteria were applied, on average approximately a further 5% of these did not meet secondary exclusion criteria. This results in a somewhat restricted sample. The results of this study should really be replicated as they challenge what is known from the literature (ie increase in severity of presenting problems over the years).

Authors: Vonk ME, Thyer BA.

Year: 1999

Title: Evaluating the effectiveness of short-term treatment at a university counselling centre

Aims:

To examine the effectiveness of short-term treatment in reducing psychosocial symptomatology of university centre counselling clinics

Participants:

41 clients were in the 'immediate treatment group' and 14 clients in the 'wait group'. Participants were students attending the university counselling centre of a private university in Atlanta, Georgia, USA. Treatment group: 85% female, 15% male. 81% White, 7% Black, 5% Latino, 7% Asian. Wait group: 57% female, 43% male, 79% White, 7% Black, 7% Latino, 7% Asian

Practitioners and training:

Six counsellors. Four trained as clinical psychologists using family systems, interpersonal, CBT/problem solving, and object relations/humanistic theoretical orientations respectively. One counsellor trained in counselling psychology utilising behavioural and humanistic techniques, and one therapist trained in social work and used cognitive-behavioural and object relations theory. Most counsellors defined themselves as 'eclectic', some identified themselves as working from one perspective (short-term psychodynamic or cognitive behavioural). Mean number of years post training was 10.2 (2-20 years)

Intervention and control:

Short-term treatment of between four and 20 sessions (mean 10 sessions). Treatment was not defined, rather the training and orientations of the therapists given. The comparison sample were clients on the waiting list for 21 days or more

Measures:

Decrease in psychosocial symptomatology as shown by administration of the Symptom Checklist 90-R (Derogatis 1992).

Method:

A quasi-experimental, non-equivalent control group design. Over a nine-month period clients were administered the SCL-90-R before intake, before the first session if more than three weeks, and after the last session. The 'immediate treatment' group was made up of those clients who participated in between four and 20 sessions, had a planned ending to treatment and completed the SCL-90-R at intake and after the last session. The 'wait group' was made up of clients who met the above criteria but whose wait between intake and treatment totalled 21 days or more, and who completed the measure at intake, before the first session and at termination.

findings:

The mean Global Severity Index Score was significantly lower in the 'immediate treatment' group ANCOVA ($F(1,52)=52, p<.01$); MANCOVA ($F(9,36) =.65, p =.02$). Post hoc ANOVA showed all subscales of the SCL-90-R apart from Paranoid Ideation were lower at time 2 for the 'immediate treatment' group.

Comments:

Characteristics of clients, outcomes and findings clearly described. External reliability is compromised as 'treatment' wasn't standardised apart from being defined as 'short-term'. Rather treatment varied by therapist. Additionally, only 14% of the 465 clients referred to the centre qualified to be included, and only 12% took part in the research. Those clients attending fewer than four sessions, who had unplanned endings, or who were referred elsewhere may differ from the treatment group. Internal validity is limited by the non-equivalence of the control/wait group with the experimental group, with clients not being randomised, but rather was a natural result of case load management, and were thus recruited at different times. Also, the wait group had a significantly higher percentage of males than the immediate treatment group.

Authors: Wagner MT.

Year: 2000

Title: Childhood abuse history correlates and implications for adult outpatient treatment

Aims:

To examine a wide range of comorbid symptoms and psychopathologies of university students with histories of childhood abuse

Participants:

Abused group: 59 clients who self-reported, or were reported by their counsellor, as having a history of childhood abuse. Non-abused group: 59 clients, quasi-randomly selected equal number of the remaining student clients seen during the same period. Archival data from a Californian university health and psychological centre. Overall 19% male, 81% female; 34% Hispanic/Hispanic-American, 29% European/Europ-American, 11% Asian, 7% African/African-American, 4% Alaskan/American-Indian, 15% not specified. Mean age 27 (range 18-61), mean number of sessions 7 (range 1-30)

Practitioners and training:

No information given

intervention and control:

N/A

Measures:

Information taken from database of routinely collected data including: history of childhood abuse, presenting problems, length of treatment, counsellors rating of level of need for counselling, overall assessment of clients' functioning and demographic information.

Method:

Use of archival database.

Findings:

Students in the abused group had a significantly greater number of psychological treatment sessions ($p<0.001$) and a greater number of presenting problems ($p<0.001$) than those in the non-abused comparison group. Those in the abused group were also more likely to gain a poorer assessment ($p=0.014$) and be classified as having a greater need for counselling ($p=0.001$) than the non-abused participants.

Comments:

No analysis was undertaken of the difference between the abused and non-abused participants in terms of demographic variables. No analysis was given of the representativeness of the quasi-randomly selected non-abused group to the wider non-abused clients. Due to the ethnic composition of participants it is not clear how generalisable these findings are.

Authors: Whitehall BJ**Year:** 2001**Title:** Dose-effect relations in simulated psychotherapy as measured by the Outcome Questionnaire-45.11**Aims:**

- 1 To investigate the rate of change in reported symptoms of 'normal' students exposed to 10 sessions of psychotherapy
 - 2 To investigate if 10 sessions are more effective than five
 - 3 To test for a linear relationship between psychotherapy and subjects' symptoms
 - 4 To see if there was a gender effect
-

Participants:

Experimental group: 23 participants; 43% male, 57% female. Control group: 62 participants; 45% male, 55% female. Participants were largely Caucasian. The institution was a small, Christian, northwestern American university.

Practitioners and training:

First-year graduate students who used basic counselling skills rather than a therapeutic orientation

Intervention and control:

The intervention group completed 10 sessions of psychotherapy and the measure, and the control group completed the measure only

Measures:

OQ-45.11 (Outcome Questionnaire; Burlingame, Hansen, Lamber, Lunnen and Umphress, 1994). Constructs assessed include subjective discomfort, interpersonal relationships and social role performance.

Method:

Participants were given the OQ-45.11 three times: (a) before beginning psychotherapy; (b) after five sessions; (c) following ten sessions. The measure was given to all participants at the same time during their class by their tutor. The experimental participants met with their counsellor once a week for 50 minutes.

findings:

There was no significant difference in scores on the measure between the control and experimental group across time, or across time for the experimental group (which was not a linear relationship). For the treatment group there was no significant main effect for gender. There was no significant difference between those in the experimental group who completed the measure three times and those who did not. There was no significant difference between the normative means and the sample means.

Comments:

The information provided on the sample is contradictory and insufficient for replication. The participants were 'normal' students from an Introduction to Psychology class who participated for course credits - there will therefore be problems with generalisability, and this may also explain why there were no significant results.

Authors: Wilson SB, Mason TW, Ewing MJM.**Year:** 1997**Title:** Evaluating the impact of receiving university-based counselling services on student retention**Aims:**

- 1 To determine if receiving counselling for personal, psychological concerns led to an advantage in retention among counselling centre clients
- 2 To investigate the dose-response relationship between amount of counselling sessions

received and student persistence

Participants:

562 Students requesting counselling for personal concerns at a US state university over a one-year period. 35% male, 65% female. 82% White, 6% Black, 5% International. Mean age 27.3 (20-59 years). US study

Practitioners and training:

9 PhD-level psychologists, 3 masters-level counsellors, 4 pre-doctoral interns, 4 masters-level counselling practicum students

Intervention and control:

The intervention 'counselling' was not defined. Comparison group of clients requesting counselling services but not receiving them (eg failed to keep first appointment, declined after wait list)

Measures:

Academic status obtained via a network link with the administrative data processing centre of the university. Retained=graduated or still enrolled; unretained=withdrawn within two years of requesting counselling.

Method:

Examined client records to identify persons requesting counselling services between Jan 1993 and Jan 1994. Linked with current academic status. Divided into four groups: (a) requested services but not received them, (b) 1-7 sessions, (c) 8-12 sessions, and (d) 13 or more sessions.

Findings:

Strong linear trend in which increases in the number of sessions attended resulted in increases in the likelihood of being retained by the university. 79% of those receiving one to seven sessions were still enrolled or graduated, compared with 65% of those requesting but not receiving counselling.

Comments:

Strengths: used independently collected retention data, resulting in outcome data being available for **all** subjects. Baseline differences between the groups were determined, with no pre-treatment differences between the groups, apart from a trend for those clients with more severe symptomatology attending more counselling sessions. External reliability is limited for UK student counselling organisations as it is a US university counselling service with 40% of the counsellors being trainees. Also, importantly, the intervention 'counselling' is not defined.

Authors: Zucker AL.

Year: 2000

Title: Presenting problems, symptoms, abuse history, and demographic characteristics of students requesting services at a university counselling centre

Aims:

- 1 How can the students be described in terms of demographic information, the problems and symptoms with which they present, their past history of abuse, and their reason for seeking help?
- 2 Can any trends be identified across years?
- 3 Does the distribution of students reporting symptoms and types of abuse differ across certain groups?
- 4 Are there any relationships that can be found between symptomatology and abuse histories?
- 5 Can students be categorised in certain ways by using sets of characteristics that describe them?

Participants :

955 (90%) students presenting at a large USA, urban, southeastern university over a four-year period consented to participating in the study. US study

Practitioners and training:

No details given

Intervention and control:

N/A

Measures:

The survey included the following sections: symptoms of emotional disorders; items related to

past sexual, physical or emotional abuse; Dissociative Disorders Scale (DES; Bernstein and Putnam, 1986); Perceptual Attention Scale (PAS; Sanders 1986; administered years 3 and 4 only); brief demographic data; reasons for reporting to counselling.

Method:

Participation was anonymous. At the time of intake participants were given the option of filling out the additional survey package.

Findings:

Reason for seeking counselling: career 34%, personal 47%, both 19%.

Diagnosis: panic disorder 5%, somatisation 2%, major depression 32%, eating problem 29%, dissociation (DES) moderate 34% higher 3%, dissociation (PAS) middle third 34%, higher third 34%, alcohol problem 36%, substance abuse 35%, ACOA 30%, suicidal ideation 35%, some/frequent adult physical abuse 24%, some/frequent adult emotional abuse 69%, some/frequent adult sexual abuse 27%, some/frequent childhood physical abuse 36%, some/frequent childhood emotional abuse 78%, some/frequent childhood sexual abuse 33%.

There were significant differences between frequency of reporting by year of data collection with regards to: childhood emotional abuse, eating problems, alcohol, and the reason given for seeking counselling.

Females more often reported: major depression, eating problems and some level of childhood sexual abuse than did males. ACOA students more frequently met the criteria for major depression. African American students more frequently reported no alcohol problems.

Students who reported frequent childhood physical abuse, frequent childhood or adult emotional abuse, alcohol problems, panic disorder, high scores of dissociation and/or eating problems more often reported suicidal ideation.

Comments:

This is a cross-sectional study providing detailed description of students who requested services at a US university counselling centre in terms of demographics, pathology, history and counselling needs. An important finding was evidence of a real existence of serious psychopathology in this student population. The study also supported research that showed the widespread histories of childhood and adult abuse among students and the significant impact of emotional abuse on students and its relationships to symptoms. Evidence such as this needs to be disseminated to those providing and funding treatment at university counselling centres.

However, the study's findings should be interpreted with some caution due to the following limiting factors:

- 1 The study used archival data and was therefore restricted to those items and variables included in the original survey. Information on other important variables such as demographic information on Hispanic and Asian Students, HIV and sexual orientation, generalised anxiety was not available.
 - 2 The study's hypotheses were tested by repeated chi-square analyses and repeated discriminant function analyses, leaving the study open to considerable risk of Type 1 errors.
 - 3 The study relied solely on client self-report data to determine the complex relations between presenting problems, symptoms, abuse history and demographic characteristics. Diagnostic observer-rated measures of symptomatology used in conjunction with self-report measures would have improved the study's internal validity.
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