

THE ROLE OF MATERNAL AND CHILD HEALTH BELIEFS
IN CHILDREN'S SOMATIC SYMPTOMS AND
GENERAL PRACTITIONER ATTENDANCE
AND
RESEARCH PORTFOLIO.

FIONA J. KNOTT (B.Sc., PhD.)

THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE DEGREE OF DOCTOR OF CLINICAL PSYCHOLOGY
IN THE FACULTY OF MEDICINE,
UNIVERSITY OF GLASGOW.

AUGUST 1995

ProQuest Number: 13832054

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13832054

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Thesis
10409
Copy 1



CONTENTS

1. Major Research Project Literature Review. Page 1
From symptom to consultation: a model of childhood somatisation and general practitioner attendance.

2. Major Research Project Proposal. Page 30

3. Major Research Project Paper. Page 43
The role of maternal and child health beliefs in children's somatic symptoms and general practitioner consultation.

4. Small Scale Service Evaluation Project. Page 72
Developing the user friendly approach to family therapy: families' perceptions of the one way screen in the first meeting.

5. Single Clinical Case Research Study. Page 91
A single case example of cognitive behaviour therapy for hypochondriasis: implications for research.

6. Single Clinical Case Research Study. Page 108

Down's syndrome and Alzheimer's disease; early presentation in a woman with mild learning difficulties.

7. Single Clinical Case Research Study. Page 124

Accounting for individual stage of change in treatment of substance abuse.

8. Appendices.

Appendix One	Page I
Appendix Two	Page III
Appendix Three	Page IX
Appendix Four	Page XV
Appendix Five	Page XX111
Appendix Six	Page XXV
Appendix Seven	Page XXVII

MAJOR RESEARCH PROJECT LITERATURE REVIEW.

From symptom to consultation: a model of childhood somatisation and general practitioner attendance.

The literature review has been written according to the guidelines of the Journal of Child Psychology and Psychiatry.

A copy of the author's notes may be found in Appendix One.

FROM SYMPTOM TO CONSULTATION: A MODEL OF CHILDHOOD SOMATISATION AND GENERAL PRACTITIONER ATTENDANCE

ABSTRACT.

This paper proposes a multifactorial model for the origin of somatic symptoms in children, their cognitive appraisal and the subsequent processes involved in the decision whether or not to consult a medical practitioner. The model suggests that symptoms arise for a number of reasons which include illness, child factors such as psychiatric disorder and family factors such as dysfunctional family systems and modelling. Following onset, the symptom is cognitively appraised by both the child and mother, a process which is influenced by health beliefs and involves an assessment of the personal risk and saliency of the symptom. Finally, a decision is made over the action to be taken. A number of factors are important here, including health beliefs, sociodemographic variables such as social support and psychological factors such as neuroticism.

INTRODUCTION.

It has been estimated that as many as one in ten children may somatise, that is suffer from somatic symptoms such as headaches and stomachaches without an observable organic cause (Garralda 1992). Children who somatise have been shown to attend their general practitioners more than other children for acute and accidental visits and less for

'well child' visits (Becker, Nathanson, Drachman and Kirscht 1977). They may become the 'heart sink patients' (Dowrick 1992, page 491) who provoke a mixture of defeat and exasperation in their doctors. However, reasons for consulting are often more complicated than the symptom alone suggests (Bass and Cohen 1982) since there appears to be no simple correlation between number of symptoms experienced and number of attendances at the general practitioner. These children may be subject to repeated unnecessary physical tests requiring time away from school and may risk developing school refusal (Shapiro and Rosenfeld 1987). Prognosis is poor (Wasserman, Whittington and Rivera 1988) and it has also been suggested that these children may go on to develop serious somatisation disorders in adulthood (Ernst, Routh and Harper 1984).

EPIDEMIOLOGY OF SOMATISING IN CHILDREN.

Full somatisation disorder, using DSM-111-R criteria (APA 1987) is rare in adults (Escobar, Burman, Karno, Forsythe and Golding 1987). Incidence in children using these criteria, which require the presence of 13 symptoms, is even lower. Shapiro and Rosenfeld (1987) reported rates between 0.08% and 0.5% from four population studies. However, the rate of somatising in children appears to be very high. 10-15% of children experience recurrent abdominal pain but an organic cause is only identified in 10% (Garber, Zeman and Walker 1990). 11% report headaches (Bille 1965, cited by Shapiro and Rosenfeld 1987).

Looking at the nature and extent of somatic symptoms, most children between 6 and 12

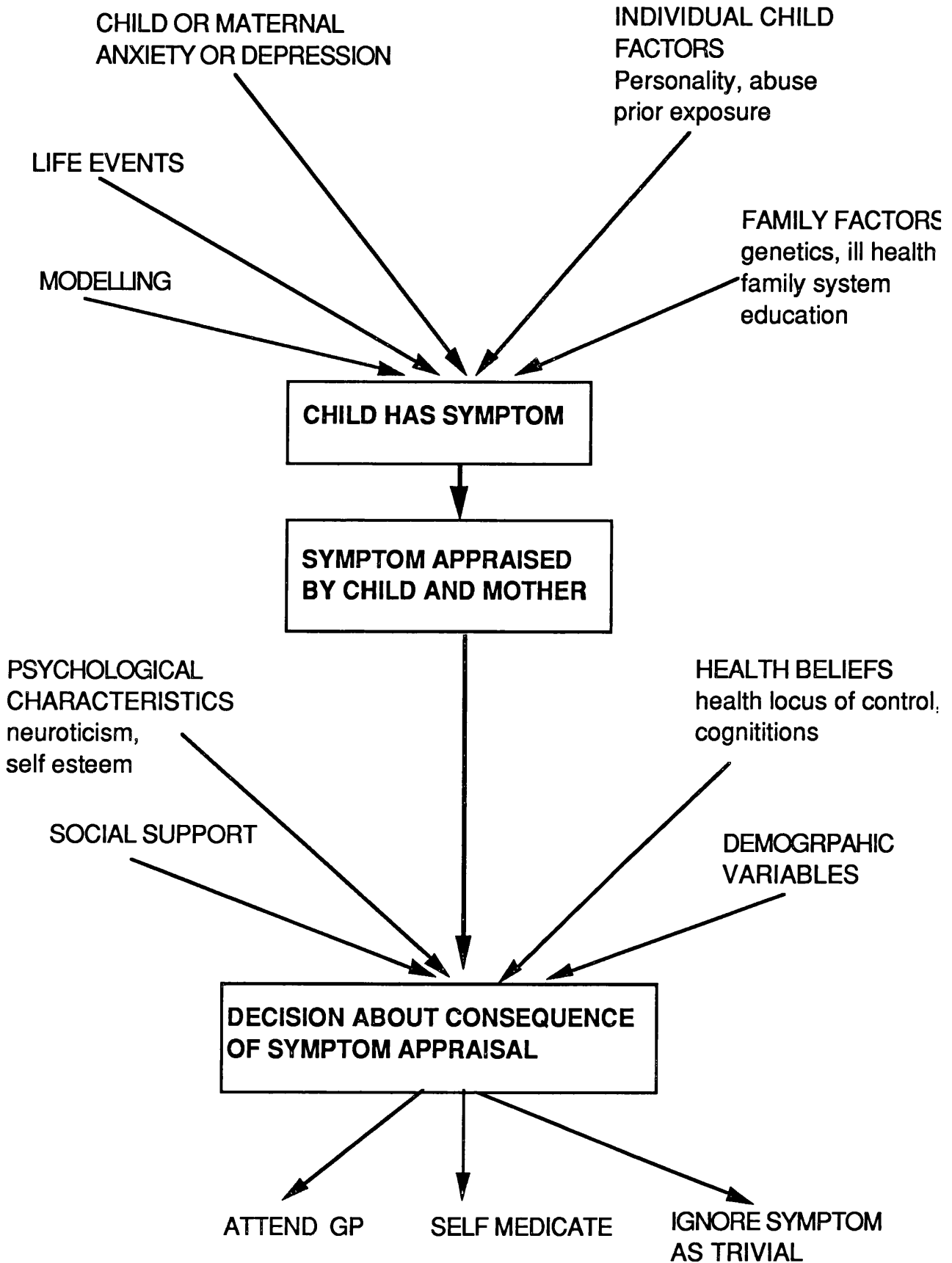
years experience less than two symptoms over a two week period, but 15% experience four or more (Garber, Walker and Zeman 1991). The most common symptoms are headache, low energy, sore muscles, nausea, pain in the back or stomach and blurred vision. Somatic symptoms also appear to cluster. Kowal and Pritchard (1990) found a higher incidence of symptoms in children with migraine than those without.

There are clear effects of age and gender on somatising in children. Before puberty, boys and girls do not differ in the rate of somatising (eg Stevenson, Simpson and Bailey 1988). However, in adolescence, the rate of somatising increases overall in both sexes, but is more marked in girls (Larsson 1991, Garber, Walker and Zeman 1991). Somatisation appears to increase in groups of lower education and lower socio-economic status and may also differ according to cultural origins (Kellner 1986).

The treatment of this disorder is not well established and it therefore seems vital to look at the psychological causes and correlates of somatising in childhood to permit the development of psychological therapies and the planning of appropriate management strategies. However, before an understanding of somatising can be reached, it is necessary to look at the origin and consequences of somatic symptoms. This information will inform knowledge of the processes operating in somatising.

The following literature review will therefore overview the causes and consequences of somatic symptoms in children, focusing mainly on those up to about 13 years, but using the adult literature when necessary. Mechanic (1986) argues that the study of illness behaviour needs to take into account the way individuals monitor, define and interpret

**FIGURE ONE
MODEL OF SOMATISING**



symptoms, take action and utilise sources of help. Therefore, a multifactorial model is proposed (see figure 1) which attempts to explain the origin and appraisal of the symptom and subsequent action. The model suggests that symptoms in children arise for a number of reasons which include illness, psychiatric disorder, family and individual factors. Following onset, the symptom is appraised by both the child and the mother, a process which is influenced by health beliefs and involves an assessment of the personal risk and saliency of the symptom. Finally, a decision is made over the action to be taken. A number of factors are important here including health beliefs, sociodemographic and psychological variables.

FACTORS INVOLVED IN THE ORIGIN OF THE SYMPTOM.

The first part of the model attempts to explain the origin of the symptom. Each of the contributing factors will be outlined separately, but it is assumed that they may interact or have an additive effect.

ILLNESS.

Real physical illness obviously plays a role in the onset of symptoms and may predispose to later somatisation disorders (Kellner 1986). Woodbury (1993) argues that although organic illness is only responsible for recurrent abdominal pain in 5-10% of cases, physiological and autonomic problems are implicated in many of the remainder. Shapiro and Rosenfeld (1987) suggest that children may learn that their needs can be met via illness and hence their symptoms do not remit.

LIFE EVENTS.

Childhood somatisation disorders are often preceded by a stressful life event, such as a death or divorce (Shapiro and Rosenfeld 1987). Similarly, children with recurrent abdominal pain have been shown to have been exposed more to illness and death than their pain free peers (Wasserman, Whittington and Rivera 1988). Life events may have an important role in predicting prognosis (Walker and Greene 1990).

INDIVIDUAL FACTORS.

These include child personality factors, particularly perfectionism (Garralda 1992) and shyness (Bell, Jasnowski, Kagan and King 1990) which may make the child vulnerable to disorder. Somatic symptoms may also arise as a result of experiencing sexual abuse (Garralda 1992).

FAMILY FACTORS.

A family history of ill health is common in children who somatise (eg Wasserman, Whittington and Rivera 1988). There are of course problems separating biological from environmental influences, but Walker, Garber, Horndasch, Barnard and Ghisan (1993) suggest the existence of 'pain prone families' (page 209) in which illness is particularly salient. Walker, Garber and Greene (1991) found that many more children with recurrent abdominal pain had relatives who somatised than children with organic pain. They hypothesise that a number of mechanisms may be in operation, including expression of family distress, heightened awareness of bodily sensations and parental modelling of illness behaviour. Kellner (1986), having reviewed a number of studies concluded that there was also evidence for the role of genetics in the development of functional somatic

symptoms.

The family system may also predispose to somatising. Sherry, McGuire, Mellins, Salmonson, Wallace and Nepom (1991) found two patterns typified families of children with musculo-skeletal pain. One group were stable high achievers where stress was denied and the child's normal drive for autonomy was thwarted. The other group were chaotic, with overt distress and depression in the mother and the child acting as peacemaker. Kirmayer (1986) suggests that the symptom may arise as a way of expressing dissatisfaction without overtly challenging the hierarchy. A repeated theme in the literature is the link between suppression of verbal emotion and somatising, either in individuals or families (eg Kirmayer 1986). However, this needs empirical testing (Shapiro and Rosenfeld 1987).

Family education styles have also been implicated. Liedtke (1990) noted that a restrictive style of parenting, including more solicitous care, less inclination to enquire about educational issues and less self criticism, was common in the families of children who somatise.

CHILD PSYCHIATRIC DISORDER.

The link between anxiety, depression and somatic symptoms is well established (eg Garber, Walker and Zeman 1991, Larsson 1991). However, it has also been suggested that anxiety has a primary role over depression when related to somatising (Hodges, Kline, Barbero and Flanery 1985; Jolly, Wherry, Weisner, Reed, Rule and Jolly 1994). Garber, Zeman and Walker (1990) found that children with recurrent abdominal pain had

more emotional symptoms than children from the general population, but did not differ from those with organic pain. They hypothesised that there might be different psychological processes underlying the anxiety, but it points to the difficulties of separating cause and effect in this area of research. Do children somatise as an expression of their emotional difficulties, or do children who somatise become anxious as a result of their repeated, unexplained physical symptoms?

MATERNAL PSYCHIATRIC DISORDER.

There is also a link between maternal psychiatric disorder and child somatic symptoms (Harjan 1989). Hodges, Kline, Barbero and Flanery (1985) noted that maternal depression was high in children with recurrent abdominal pain, and suggest that children may be internalising their mothers' distress. Maloney (1980, cited by Shapiro and Rosenfeld 1987) suggest that as many as 80% of somatisers could have a depressed parent. Again the same problems of cause and effect apply. Children may somatise because of their mothers' problems, or mothers may become depressed because of their children's repeated illnesses.

MODELLING.

Garber, Zeman and Walker (1990) found that mothers of children with recurrent abdominal pain were more likely to describe themselves as 'sickly' than mothers of children who had organic or no pain, and suggested that the children copied their behaviour. Bennet-Osborne, Hachter and Richtsmeier (1989) believe that social learning theory can provide an adequate explanation for somatising. In their study, children with pain were readily able to identify models of pain in their relatives and also saw similar

consequences for their pain. Rickard (1988) found that children of adults with chronic low back pain had a higher frequency of behaviours learned from their parents than children of diabetic or well parents. As the children were not pain sufferers, it demonstrates that behaviours can cross generations from parent to child, without similar causal factors being necessary.

FACTORS INVOLVED IN SYMPTOM APPRAISAL.

The research described above has attempted to document the many reasons why somatic symptoms may arise in children. The following section describes the second phase of the model. It starts with the assumption that once a symptom occurs, it is cognitively appraised by both child and mother to determine the meaning of the symptom and the risk to the individual. This process is influenced by the health-related beliefs of the individual. Three factors are important here, the mother's beliefs about health in general, the child's beliefs about health and the way the mother attends to and interprets her child's symptoms.

GENERAL PROCESSES OPERATING IN BELIEFS ABOUT HEALTH.

The role of cognitions in somatisation has been developed by cognitive-behavioural psychologists such as Salkovskis (1989). He believes that a crucial component in the disorder is the observation and misinterpretation of bodily signs or symptoms and communications from the media or medical practitioners as evidence of a serious health problem. A number of factors are important in the development and maintenance of this style of thinking, for instance, heightened body awareness, confirmatory bias in symptom

appraisal and errors in beliefs about health. Robbins and Kirmayer (1986) found that somatic symptoms in adults were predicted by somatic cognitions and heightened body awareness. Similarly, Barsky, Coeytaux, Sarnie and Cleary (1993) found that individuals with hypochondriasis (a disorder similar to somatisation) had faulty normative standards about health, believing more innocuous symptoms to indicate ill health than the general population.

A number of models have been developed to explain the relation of beliefs to health related activity but it is beyond the scope of this literature review to describe them in detail. There are two in particular which are used regularly. The first, referred to here as the health belief model, was developed in the 1970's by Becker (cited by Rabinowitz, Malamed, Kasan and Ribak 1992). It postulates that actions related to health are predicted by the individual's belief in his or her susceptibility to the illness, its seriousness and threat, barriers to and cost of action. The second, the health locus of control was developed by Wallston, Wallston and De Vellis (1978) from the more general locus of control. The health locus of control proposes that an individual's health related decisions are governed by beliefs in internality (ie his or her own ability to influence health) or externality which is split into two dimensions, chance and powerful others (the media and medical practitioners in particular). Rabinowitz, Malamed, Kasan and Ribak (1992) believe that these two models relate to different aspects of health activity, the health belief model to preventative health care, and the health locus of control to the maintenance of health care after becoming ill. There appears to be very little research to date on the relationship of health beliefs to somatising, the literature concentrating on preventative health care and chronic illnesses.

CHILDREN'S HEALTH BELIEFS.

There are relatively few studies of the health beliefs of children and mostly they again relate to the way children manage chronic diseases. For instance, health beliefs have been shown to be important in child adherence to a diabetes regimen (Charron-Prochownik, Becker, Brown, Liang and Bennett 1993). However, it has been reported that children think they are capable of making decisions about attending the general practitioner by 14-15 and about surgery by 16 or 17 (Alderson 1992). Interestingly, these children believed that it was appropriate for them to make decisions about homework and going out at a younger age, which perhaps indicates that they take health issues seriously. Health locus of control beliefs have been shown to be related to both physical and psychiatric wellbeing. Perrin and Shapiro (1985) found that children with chronic health problems took longer to develop an internal locus of control with regard to health than their well peers.

One way that children may develop their system of health beliefs is through their family. Parental difficulties can affect the development of children's health beliefs and vice versa. Children of low back pain parents are lower in internality and higher in externality than children of diabetic and well parents (Rickard 1988), while mothers of children with seizures or orthopaedic problems are similarly lower on internality scales than mothers of well children (Perrin and Shapiro 1987). However, Perrin and Shapiro (1987) also found that there was no correlation between mother and child scores on the health locus of control scale, suggesting that if beliefs are shared, it is in a complex manner.

There is, however, some evidence that while young children do not share their mothers

health beliefs, they are related by adolescence (Fox 1991). Jacobs Quadrel and Lau (1990) found that shared beliefs do not emerge till 12 or 13 and are not strongly related until 16 or 17. They suggest that a certain level of cognitive maturity is needed for individuals to understand the role of health. Before this time, it may be that health is not salient as the mother makes all the decisions. However, mothers are powerful models for their children's health beliefs and in adolescence are more importance than the peer group (Fox 1991).

MATERNAL ATTENTION TO AND INTERPRETATION OF CHILD SYMPTOMS.

It is reasonable to assume that in most instances, when a child is ill, the caregiver (usually the mother) will be responsible for deciding on the severity of the symptom and organising home treatment or the use of the general practitioner (Leach, Ridsdale and Smeeton 1993). It is therefore important to know how mothers view their children's symptoms.

There is general agreement in the literature that mothers and children in fact have quite low agreement over child symptoms. Harris-Canning, Hanser, Shade and Boyce (1993) found that mothers and children only agreed in 30% of cases on the presence of psychiatric disorder in the child. Livingstone, Taylor and Crawford (1988) argue that children 'over-report' emotional problems and 'under-report' behavioural problems compared with their mothers. Under-reporting of behavioural problems is hardly surprising, since these kind of difficulties are, almost by definition, usually only a problem to someone else. More importantly, however, they appear to be making the assumption that children are less accurate than their mothers in the reporting of their own

symptoms. The problems the mother is experiencing may impact on her perception of child symptoms. Harris-Canning, Hanser, Shade and Boyce (1993) found that depressed mothers reported more child emotional and behavioural problems than non-depressed mothers.

CONSEQUENCES OF SYMPTOM APPRAISAL.

The third part of the model deals with the decisions which follow symptom appraisal. Firstly, the child or mother may decide that the symptom is trivial and therefore ignore it. Secondly, they may decide that self treatment is appropriate. Finally there may be a decision to consult a medical practitioner.

On the whole, mothers are very accurate about the treatment that their children need. Cunningham-Burley and Irvine (1987) have noted that general practitioners think that mothers are unwilling to treat minor symptoms themselves and therefore come in for help when little can be done. However, they found that mothers only consulted on 11% of the times action was taken for a symptom, the rest being over the counter remedies, and home nursing. Similarly, Pattison, Drinkwater and Downham (1982) found that mothers were highly accurate about consulting over their first, young babies health problems. However, it is possible that perceptions of health may differ between the mother and the general practitioner (Irvine and Cunningham-Burley 1991). Mother's perceptions of health were embedded in knowledge of the child, and changes in behaviour (not eating, for example) were taken to indicate changes in health. There is therefore potential for great misunderstanding if the general practitioner does not recognise what

the mother is evaluating.

For the majority of users, the decision about when to consult predominantly relates to the presence of symptoms of illness (Grimsmo and Siem 1984), or a subjective feeling of illness and poor physical function (Schrire 1986). However, a number of other factors are involved in normal consultation. Perceived severity of the symptom is important (Linnet, Celetano and Stewart 1991), especially if it is seen as a threat to overall health. Users of general practitioners have reported that they consult on advice from others and if they perceive the patient care in the practice is good (Van de Kar, Knotterus, Meertens, Dubois and Kok 1992). The importance of the perceived efficacy of care was also noted by Bercanovic, Telesky and Reeder (1981).

Mothers make decisions about consulting for their children usually after they have tried home remedies, and when the child is worse or not improved (Cunningham-Burley and Irvine 1987). They consult over child coughs when they perceive the illness as serious, for instance being afraid the child will die through choking or sustain permanent chest damage (Cornford, Morgan and Ridsdale 1993). Despite general practitioners' fears to the contrary, many mothers are simply looking for reassurance that they are doing the right thing during these consultations (Cunningham-Burley and Irvine 1987).

Given that most people consult appropriately, either for themselves or their children, a number of studies have looked at the characteristics of those forming the high attender group. It is logical to assume that illness symptoms will still play a role in the decision to attend, but there is some confusion in the literature over this. Riley, Finney, Mellits,

Starfield, Kidwell, Quaskey, Cataldo, Phillip and Stematek (1993) found history of ill health explained 21% variance in high/low attendance while Jacobs Quadrel and Lau (1990) found that ill health was not an important variable in adolescent consultation. The real reason for paediatric consultation is often due to a much more serious worry than the presenting symptom (Bass and Cohen 1992). Adult frequent attenders often have a history of poor physical health or a chronic condition in the past (Westhead 1985, Corney 1990). This may influence their perception of the symptom, for example through selective attention or anxiety, making them likely to inflate the seriousness of new symptoms. If child frequent attenders also have a family history of ill health, the same processes may be operating by making either the child or the mother overly attentive to symptoms.

Sociodemographic variables have a mixed relationship to high attendance in the literature. Women have consistently been shown to attend more than men and older people more than younger (Grimsom and Siem 1984, Corney 1990). These studies suggest that high attending women have few social supports and high levels of anxiety and depression. Vazquez-Barquero, Wilkinson, Williams, Diez-Manrique and Pene 1990 found that women consult more than men even when General Health Quotient score was partialled out. Education and socio-economic status were shown to be unrelated to high attending by Grimsom and Siem (1984) and Westhead (1985) but Schrire (1986) found the reverse. He suggests that overcrowding, unemployment retirement may operate via poor nutrition and higher smoking.

Psychological characteristics are clearly related to high attending, however. High and low users can be differentiated by neuroticism (Schrire 1986, Westhead 1985), with women

likely to be depressed and men to use alcohol. Resources for coping with somatic symptoms are reduced by marital problems, life events, family dysfunction and poor self esteem (Schrire 1986). Anxiety and low self efficacy are likely to be related to high attendance and reassurance seeking. Child depression is unrelated to attendance (Riley et al 1987) but child psychiatric problems may lie behind as many as a quarter of consultations (Coverley, Garralda and Bowman 1995). However, since parents tend to consult teachers and non-medical practitioners when they are aware of a psychiatric problem (Cohen, Kasen, Brook and Struening 1991), the ostensible reason for general practitioner consultations is likely to be somatic concerns. Maternal GHQ score on the other hand, has been found to be the most important predictor of general practitioner consultation (Leach Ridsdale and Smeeton 1993). This suggests that mothers who are depressed lack confidence of their own abilities or judgement and instead rely on others.

Health beliefs, too are important. An internal health locus of control is related to appropriate use of medical services, for example 'well baby' examinations (Tinsley and Holtgrove 1989) and it is therefore logical to suggest that the opposite is true for externalisers. Indeed, frequent attenders have a high belief in 'powerful others' in relation to their own health (Corney 1990). Depressed mothers are more likely to externalise than non-depressed mothers (Politano, Stapleton and Correll 1992) and this may explain the link between maternal low mood and consultation.

Finally, family functioning may also be important. Rigid or disengaged families are less likely to change in response to illness or share health related tasks, resulting in overly low attendance. Enmeshed families are more likely to over attend (Phipps 1991). The

mothers own pattern of health care is important with frequently attending mothers being more likely to have children who attend often (Leach, Ridsdale and Smeeton 1993).

CONCLUSIONS.

The model described above goes some way towards explaining the origin of symptoms in children, the appraisal and decision making process which follows and the consequent action. It may also be of use in explaining the development of full blown somatisation disorder in children. If this process described above is faulty, and children and mothers repeatedly make the decision that the child is ill when there is no organic reason for this, the child may develop the disorder. Several factors make this more likely. Firstly, certain characteristics of families and children were implicated in the origin of the symptom such as perfectionist personality and difficulties with verbal expression of emotion. These are long standing characteristics which are therefore likely to be involved in the origin of numerous symptoms. Secondly, there is evidence that a history of illness predisposes individuals to somatising. If individuals interpret an innocuous symptoms as indicating illness, and take action such as consulting the general practitioner, this in itself is likely to predispose them to similar interpretations of later symptoms. Finally, reinforcement and secondary gain may operate after the initial response to a symptom (Kellner 1986). Walker, Garber and Greene (1993) found that children with recurrent abdominal pain received increased attention and privileges for their pain over children with organic pain and well children, demonstrating the role of reinforcement.

In order to demonstrate the utility of this model of the relationship of somatic symptoms,

cognitive appraisal and general practitioner consultation, further research is necessary. In particular, more information is needed about the way mothers perceive and interpret their children's somatic symptoms. Although the evidence suggests that most mothers underestimate, it may be that their appraisal of their children's symptoms is affected by their psychiatric status or health beliefs. The relationship of health beliefs to general practitioner attendance has also not been tested empirically. Using the health locus of control, it could, for instance, be predicted that those people low on the internality dimension and high on the powerful others dimension would be frequent general practice users. Does this also apply to mothers making decisions to consult about their children? An experimental test of aspects of the model may be found later in this volume.

REFERENCES.

Alderson P. (1992). Everyday and medical life choices: decision making among 8 to 15 year olds.

Child: care, health and development, 18, 81-95.

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders*.

Third edition, revised.

Barsky A., Coeytaux R., Sarnie M. and Cleary P. (1993). Hypochondriacal patients beliefs about good health.

American Journal of Psychiatry, **150**, 1085-1089.

Bass L. and Cohen R. (1982). Ostensible versus actual reasons for seeking paediatric attention: another look at the parental ticket of admission.

Pediatrics, **70**, 870-874.

Becker M., Nathanson C., Drachman R. and Kirscht J. (1977). Mother's health beliefs and children's clinic visits.

Journal of Community Health, **3**, 125-135.

Bell I., Jasnoski M., Kagan J. and King D. (1990). Is allergic rhinitis more frequent in young adults with extreme shyness?

Psychosomatic Medicine, **52**, 517-525.

Bennet-Osborne R., Hachter J. and Richtsmeier A. (1989). The role of social modelling in unexplained paediatric pain.

Journal of Paediatric Psychology, **14**, 43-61.

Bercanovic E., Telesky C. and Reeder S. (1981). Structural and social psychological factors in the decision to seek medical care for symptoms.

Medical Care, **19**, 693-709.

Charron-Prochownic D., Becker M., Brown M., Liang W. and Bennett S. (1993). Understanding young children's health beliefs and diabetes regimen.

The Diabetes Educator, **19**, 409-418.

Cohen P., Kasen S., Brook J. and Struening E. (1991). Diagnostic predictors of treatment patterns in a cohort of adolescents.

Journal of the American Academy of Child and Adolescent Psychiatry, **30**, 989-993.

Corney R. (1990). Sex differences in general practice attendance and help seeking for minor illness.

Journal of Psychosomatic Research, **35**, 525-534.

Cornford C., Morgan M. and Ridsdale L. (1993). Why do mothers consult when their children cough?

Family Practice, **10**, 193-196.

Coverley C., Garralda M. and Bowman F. (1995). Psychiatric intervention in primary care for mothers whose schoolchildren have psychiatric disorder.

British Journal of General Practice, **45**, 235-237

Cunningham-Burley S. and Irvine S. (1987). 'And have you done anything so far?' An examination of lay treatment of children's symptoms.

British Medical Journal, **195**, 700-702.

Dowric C. (1992). Why do the O'Sheas consult so often? An exploration of complex family illness behaviour.

Social Science and Medicine, **34**, 491-497.

Ernst A., Routh D. and Harper D. (1984). Abdominal pain in children and symptoms of somatisation disorder.

Journal of Paediatric Psychology, **9**, 77-86.

Escobar J., Burman A., Karno M., Forsythe A. and Golding J. (1987). Somatisation in the community.

Archives of General Psychiatry, **44**, 713-719.

Fox J. (1991). Mothers influence on their adolescents tendency to seek medical care.

Journal of Adolescent Health, **12**, 116-123.

Garber J., Walker L. and Zeman J. (1991). Somatisation symptoms in a community sample of children and adolescents; a further validation of the children's somatisation inventory. *Psychological Assessment: a journal of Consulting and Clinical Psychology* **3**, 588-595.

Garber J., Zeman J. and Walker L. (1990). Recurrent abdominal pain in children: psychiatric diagnoses and parental psychopathology.

Journal of the American Academy of Child and Adolescent Psychiatry, **29**, 648-656.

Garralda M. (1992). A selective view of child psychiatric syndromes with a somatic presentation.

British Journal of Psychiatry, **161**, 759-753.

Grimsmo A. and Siem H. (1984). Factors affecting primary health care utilisation.
Family Practice, **1**, 155-161.

Harjan A. (1989). Children of parents with affective disorders: developmental and behavioural disorders, somatic and psychiatric care.
European Journal of Psychiatry, **3**, 219-234.

Harris-Canning E., Hanser S., Shade K. and Boyce T. (1993). Maternal distress and discrepancy in reports of psychopathology in chronically ill children.
Psychosomatics, **34**, 506-511.

Hodges K., Kline J., Barbero G. and Flanery R. (1985). Depressive symptoms in children with recurrent abdominal pain and their families.
Journal of Pediatrics, **107**, 622-626.

Irvine S. and Cunningham-Burley S. (1991). Mother's concepts of normality, behavioural change and illness in their children.
British Journal of General Practice, **41**, 371-374.

Jacobs Quadrel M. and Lau R. (1990). A multivariate analysis of adolescents orientation towards physician use.
Health Psychology, **9**, 750-773.

Jolly J., Wherry J., Weisner D., Reed D., Rule C. and Jolly J. (1994). The mediating role of anxiety in self-reported somatic complaints of depressed adolescents.

Journal of Abnormal Child Psychology, **22**, 691-702.

Kellner R. (1986). *Somatisation and hypochondriasis*. Prager.

Kirmayer L. (1986). Somatisation and the social construction of illness experience. In S. McHugh and M. Vallis (Eds.), *Illness behaviour: a multidisciplinary model*. Plenum Press.

Kowal A. and Pritchard D. (1990). Psychological correlates of children who suffer from headaches: a research note.

Journal of Child Psychology and Psychiatry, **31**, 637-649.

Larsson B. (1991). Somatic complaints and their relationship to depressive symptoms in Swedish adolescents.

Journal of Child Psychology and Psychiatry, **32**, 821-832.

Leach J., Ridsdale L. and Smeeton N. (1993). Is there a relationship between a mother's mental state and consulting the doctor by the family. A study in a military general practice.

Family Practice, **10**, 305-311.

Liedtke R. (1990). Somatisation and psychosomatic disease: an empirical study of the

educational style of parents with psychosomatic children.

Psychotherapy and Psychosomatics, **54**, 208-213.

Linnet M., Celetano D. and Stewart W. (1991). Headache characteristics associated with physician consultation: a population based survey.

American Journal of Preventative Medicine, **7**, 40-47.

Livingstone R., Taylor J. and Crawford S. (1988). A study of somatic complaints and psychiatric diagnoses in childhood.

Journal of the American Academy of Child and Adolescent Psychiatry, **27**, 185-187.

Mechanic D. (1986). Illness behaviour: an overview.

In S. McHugh and M. Vallis (eds). *Illness behaviour: a multidisciplinary model*, Plenum Press.

Pattison C., Drinkwater C. and Downham M. (1982). Mothers' appreciation of their children's symptoms.

Journal of the Royal College General Practitioners, **32**, 149-162.

Perrin E. and Shapiro E. (1985). Health locus of control beliefs of healthy children, children with a chronic physical illness and their mothers.

Journal of Pediatrics, **107**, 627-633.

Phipps S. (1991). Family system functioning, family health roles and utilisation of

physical health services.

Lifestyles, **12**, 23-41.

Politano P., Stapleton L. and Correll J. (1992). Differences between children of depressed and non-depressed mothers. Locus of control, anxiety and self esteem: a research note.

Journal of Child Psychology and Psychiatry, **33**, 451-455.

Rabinowitz S., Malamed S., Kasan R. and Rubak J. (1992). Personal determinants of health promoting behaviour.

Public Health Review, **20**, 5-14.

Rickard K. (1988). The occurrence of maladaptive health related behaviours. Teacher related conduct problems in children of chronic low back pain patients.

Journal of Behavioural Medicine, **11**, 107-116.

Riley A., Finney J., Mellits D., Starfield B., Kidwell S., Quaskey S., Cataldo M., Phillip L. and Stematek J. (1993). Determinants of children's health care use: an investigation of psychosocial factors.

Medical Care, **31**, 767-783.

Robbins J. and Kirmayer L. (1986). Illness cognition, symptom reporting and somatising in family medicine.

In S. McHugh and M. Vallis (Eds.), *Illness behaviour: a multidisciplinary model*. Plenum

Press.

Salkovskis P. (1989). Somatic problems.

In K. Hawton, P.Salkovskis, J. Kirk and D. Clark (Eds.), *Cognitive behaviour therapy for psychiatric problems*. Oxford University Press.

Schrire S. (1986). Frequent attenders - a review.

Family Practice, **3**, 272-275.

Shapiro E. and Rosenfeld A. (1987). *The somatising child. Diagnosis and treatment of somatisation disorders*. Springer-Verlag.

Sherry D., McGuire T., Mellins E., Salmonson K., Wallace C. and Nepom B. (1991).

Psychosomatic musculoskeletal pain in childhood: clinical and psychological analyses of 100 children.

Pediatrics, **88**, 1093-1099.

Stevenson J., Simpson J. and Bailey V. (1988). Research note: recurrent headaches and stomachaches in preschool children.

Journal of Child Psychology and Psychiatry, **29**, 897-900.

Tinsley B. and Holtgrove D. (1989). Maternal health locus of control beliefs, utilisation of childhood preventative services and infant health.

Developmental and Behavioural Paediatrics, **10**, 236-241.

Van de Kar A., Knotterus A., Meertens R., Dubios V., and Kok G. (1992). Why do patients consult their general practitioner? Determinants of their decision.

British Journal of General Practice, **42**, 313-316.

Vazquex-Barquero J., Wilkinson G., Williams P., Diez-Manrique J. and Pena C. (1990). Mental health and medical consultation in primary care settings.

Psychological Medicine, **20**, 681-694.

Walker L., Garber J. and Greene J. (1991). Somatisation symptoms in paediatric abdominal pain patients: relation to chronicity of abdominal pain and parent somatisation.

Journal of Abnormal Child Psychology, **1991**, 379-394.

Walker L., Garber J. and Greene J. (1993). Psychosocial correlates of recurrent abdominal pain: a comparison of paediatric patients with recurrent abdominal pain, organic illness and psychiatric disorders.

Journal of Abnormal Psychology, **102**, 248-258.

Walker L. and Greene J. (1990). Negative life events and symptom resolution in paediatric abdominal pain patients.

Journal of Paediatric Psychology, **3**, 341-360.

Walker L., Greene J., Garber J., Horndasch R., Barnard J. and Ghishan F. (1993).

Psychosocial factors in paediatric abdominal pain: implications for assessment and treatment.

The Clinical Psychologist, **46**, 206-213.

Wallston K., Wallston B. and De Vellis R. (1978). Development of the multidimensional health locus of control scales.

Health Education Monographs, **6**, 149-159.

Wasserman A., Whittington P. and Rivera F. (1988). Psychogenic basis for abdominal pain in children and adolescents.

Journal of the American Academy of Child and Adolescent Psychiatry, **27**, 179-184.

Westhead J. (1985). Frequent attenders in general practice: medical, psychological and social characteristics.

Journal of the Royal College of General Practitioners, **35**, 337-340.

Woodbury M. (1993). Recurrent abdominal pain in child patients seen at a paediatric gastroenterology clinic.

Psychosomatics, **34**, 485-493.

MAJOR RESEARCH PROJECT PROPOSAL.

The role of children and mother's beliefs about health in children's somatic symptoms and general practitioner consultation.

Further relevant information relating to the proposal may be found in appendix two

MAJOR RESEARCH PROJECT PROPOSAL.

APPLICANTS.

RESEARCHER: Fiona Knott, Department of Psychological Medicine, Gartnavel Royal Hospital, Glasgow.

SUPERVISOR: Christine Puckering, Lecturer in Clinical Psychology, Department of Clinical Psychology, Gartnavel Royal Hospital, Glasgow.

TITLE: THE ROLE OF CHILDREN'S AND MOTHER'S BELIEFS ABOUT HEALTH IN CHILDREN'S SOMATIC SYMPTOMS AND GENERAL PRACTITIONER CONSULTATION.

AIM AND OBJECTIVES OF STUDY.

It has been estimated that as many as 1 in 10 children may somatise, that is suffer from somatic symptoms such as headaches and stomachaches without an observable organic cause (Garralda 1992). The number varies according to age but peaks at around 13. Children who somatise have been shown to attend their general practitioners more often than other children for acute and accident visits and less for 'well child' visits (Becker, Nathanson, Drachman and Kirscht 1977). Somatising causes considerable distress in both children and families, leading to large amounts of time away from school. Furthermore, given the psychological nature of the disorders, physical treatments are inappropriate, so repeated general practitioner visits may drain resources unnecessarily. It has also

been suggested that children who somatise may go on to develop more serious somatisation disorders in adulthood (Ernst, Routh and Harper 1984). Therefore, looking at the psychosocial causes and correlates of these somatic disorders in children may permit psychological treatments and management strategies to be developed and may help prevent the development of adult disorders.

A multifactorial model for the development of somatic symptoms in children, appraisal and subsequent action has been developed (Knott 1995). It proposes that symptoms may arise for a variety of reason and are then cognitively appraised by both the child and the mother. This appraisal process is influenced by health beliefs and permits an assessment of the personal salience and risk from the symptom. Following this, a decision is taken over the action which should follow, which is influenced by health beliefs, sociodemographic and psychological variables. This model of somatising is attempting to tie together the many factors identified as being related to childhood somatisation. However, a number of areas remain under-researched and the current study was designed with this in mind. In particular, it is looking at the relation of child and maternal health beliefs to symptoms in children aged 7 to 12, maternal appraisal of those symptoms and to the decision to attend the general practitioner. There are four main areas which will be considered in detail.

- 1) The relationship of somatic symptoms to general practice attendance, since there are contradictory findings in the literature.
- 2) The relationship of child and maternal health beliefs to each other, to reporting of child symptoms and to frequency of general practitioner consultation. In particular, it is

predicted that children with high somatic symptoms will have faulty normative standards about health as will their mothers. It is also predicted that frequent attenders and their mothers will have low internal health locus of control beliefs but stronger beliefs in powerful others.

3) The third will relate to the way mothers see their children's symptoms. It is predicted that overall, mothers will underestimate their children's somatic symptoms compared with the children themselves. The way mothers make decisions about their children's symptoms will be further explored.

4). The fourth will be an attempt to predict frequency of general practice attendance, using discriminant analysis.

SUBJECTS.

RECRUITMENT.

The sample will be recruited from a general practice in the Clarkston area of Glasgow. This is a predominantly white, middle class area and was selected for the heterogeneity of the patients in the practice.

The general practitioners will supply a list of all those children in the practice aged between 7 years 0 months and 12 years 11 months on 8.2.94. They then will then marked on this list all those children they believe to be frequent attenders at the practice, but who lack significant medical reasons for attendance such as leukaemia. This will generate a

group of children, known as the frequent attender group, the families of whom will be contacted to ask if they would consider participating (see below). If there are siblings in this group, then only the first will be contacted.

From the remaining children, a group of equal size will be randomly selected and contacted to ask if they are willing to take part. This will constitute the non-frequent attender group. Siblings of children in the frequent attender group will not be contacted. If there are siblings in the non-frequent attender group, then only the first will be contacted.

Families in both groups will be sent two letters. The first will constitute an introduction to the researcher and the research from one of the general practitioners in the practice. The second, from the researcher, will outline the purpose of the study and will contain the requirements of participation, an assurance of confidentiality and an assurance that refusal to participate would not affect their continuing care in the practice. They will be asked to fill in and return a copy of the child symptom inventory (described below) along with a form indicating their willingness to participate in the study.

MEASURES.

CHILD MEASURES.

1. Childhood Somatisation Inventory, CSI-child version (Walker, Garber and Greene 1991).

This inventory was developed to measure the intensity of children's self reported somatic

symptoms. It comprises a list of 35 symptoms which are to be rated for degree to which they bothered the child over the previous two weeks using a 5 point scale (not at all, a little, some, a lot and a whole lot). It does not assess possible organic causes for symptoms, their duration or the degree of dysfunction associated with them. A copy may be found in appendix two.

Children will be asked to complete the CSI for the two weeks prior to the interview.

2. Children's Manifest Anxiety Scale (Reynolds and Richmond 1978).

This scale was developed as a reliable measure children's anxiety, and consists of 28 items relating to anxiety and 9 to a lie scale. Children simply tick whether the statement does or does not apply to them. For the purposes of the present study, only the 28 items of the anxiety scale will be used. Children will be asked to think about how they have felt over the last year.

3. Depression Self Rating Scale for Children (Birleson 1987)

Developed in 1978, the scale consists of 37 items associated with major depression in children. For each item child ticks the column which applies to them, either 'most of the time', 'sometimes' or 'never'. Scoring is in the direction of disturbance, either 2 (most of the time), 1 (sometimes) or 0 (never) and items are summed to obtain the total score. A score of 15 or more suggests the presence of a dysphoric mood.

Birleson (1987) suggests children should be told to tick the item which applies to them for the last week, but in the current study this will be altered to apply to the previous

year. This is because the scale was not to be used for the diagnosis of depression but to look for more longstanding beliefs.

4. Child Health Locus of Control, CHLOC (Parcel and Meyer 1978).

This is a 20 item scale developed from the multidimensional health locus of control (Wallston et al 1976, cited by Parcel and Meyer 1978) and has been validated on children aged 7 to 12. It assesses health beliefs along three dimensions. Chance and powerful others approximate the original external dimension, while the third assesses internality. Parcel and Meyer (1978) use a 4 point likert scale but it was adapted here to a 5 point to allow a mid point for the children's answers. A copy may be found in appendix two.

5. Health Norms Sorting Task (Barsky, Coeytaux, Sarnie and Cleary 1993).

The task consists of classifying a number of common and ambiguous physical symptoms (eg headache) as healthy or not healthy. The score indicates the number of symptoms which the individual thinks suggests disease. Following Barsky (1994, personal communication), subjects will be told:-

'I want you to imagine a healthy person. I am now going to give you a set of cards, each one of which has a symptom of illness written on it. Imagine that the healthy person has each one of the symptoms in turn for about a day and tell me whether you think that person is still healthy or no longer healthy'.

A copy of the task may be found in appendix two. Children will be encouraged to ask for the descriptions of symptoms if necessary. These descriptions will be provided while attempting not to influence children's perception of severity, eg diarrhoea will be

described as 'the runs'.

MATERNAL MEASURES.

1. Childhood Somatisation Inventory, CSI-parent version (Garber, Walker and Zeeman 1991).

The parent inventory is identical to the CSI except that parents complete it with regard to their children's symptoms. In the current study, mothers will be asked to complete the inventory of their child's symptoms for the two week period prior to the interview, without consulting the child.

2. Maternal Health Locus of Control, Maternal HLOC (Tinsley and Holtgrove 1989).

These were modified from Parcel and Meyer;s (1978) children's health locus of control scales by changing the wording of items to reference parents. One item moved from powerful others in the CHLOC (My mother must tell me how to keep from getting sick) to internality in the parent HLOC ('It is my job as a mother to keep my child from getting sick'). Therefore, 5 items form the chance subscale, 8 the powerful others and 7 the internal subscale.

3. Adult somatisation inventory, ASI (Walker 1994, personal communication).

This scale is similar to the CSI; adults are asked to respond in the same way to the same list of symptoms. In the current study, mothers will be asked to complete the inventory of their own symptoms for the two week period prior to the interview.

4. General Health Questionnaire, GHQ 28 (Goldberg 1978).

Adults rate various items relating to their health over the last few weeks on a four point scale (better than usual, same as usual, worse than usual and much worse than usual). The GHQ 28 yields four subscales, somatising, anxiety, social dysfunction and depression, as well as an overall score which can be used to indicate the presence of psychiatric disorder. A score of 3 or 4 is suggested as the cut off (Goldberg 1978).

5. Multidimensional Health Locus of Control, HLOC (Wallston, Wallston and de Vellis 1978).

This is identical to the Child health locus of control scale described above, except that it applies to adults. Adults rate their belief in or agreement with a 18 statements, correlating with the three dimensions, using 5 point likert scale from strongly agree (5) to strongly disagree (1). A score is then obtained for each dimension where the lower the figure, the lower the belief in that dimension.

6. Health norms sorting task (Barsky, Coeytaux, Sarnie and Cleary 1993).

The task and procedure for mothers was identical to that described above for children.

GENERAL PRACTITIONER CONSULTATIONS.

The number of times each child has consulted the general practitioner or practice nurse in the last two years will be obtained from the medical files held in the practice. Visits for pre-holiday inoculations will be excluded.

PROCEDURES

Information and consent

As described, potential volunteers will be sent a letter outlining the purpose of the study and asking if they would consider participating. They will have as much time as they wish to consider this, and may drop out of the study at any time, including after the interviews have been conducted.

Verbal consent will be obtained over the telephone when the initial questionnaires have been returned, allowing the opportunity to explain the procedures in detail. Two written consent forms will be obtained from the mother at the start of the home visit. One form will be retained by the mother and one by the investigator.

Data collection

Families consenting to a home visit will be visited at home for approximately an hour. The mother and child will complete the questionnaires separately in the order outlined above. Demographic information will be collected from the mother.

Confidentiality

All data will be treated in strictest confidence and the names of those taking part will not be published or entered onto a computer data base.

Timing and location.

It is anticipated that the data collection phase will start after Easter 1994 and will

continue until Christmas 1994. Families will be visited in their own homes.

Ethical procedures.

Prior to the general practitioners permitting access to files, a proposal will be submitted to the Greater Glasgow Community and Primary Care Local Research Ethics committee.

FUNDING ARRANGEMENTS.

Subjects will not be offered any financial incentives for participating and it will be made clear to them that their continuing health care will not be affected by their decision whether or not to participate.

STATISTICS.

The data will be collated by hand and stored on floppy discs. SPSS-PC will be used for statistical analysis.

REFERENCES.

Barsky A., Coeutaux R., Sarnie M. and Cleary P. Hypochondriacal patients beliefs about good health.

American Journal of Psychiatry, 1993, **150**, 1085-1089.

Becker M., Nathanson C., Drachman R. and Kirscht J. Mother's health beliefs and children's clinic visits.

Journal of Community Health 1977, **3**, 125-135.

Birleson P., Hudson I., Grey Buchannon D. and Wolf S. Clinical evaluation of a self-rating scale for depressive disorder in childhood.

Journal of Child Psychology and Psychiatry 1987, **28**, 43-60.

Ernst A., Routh D. and Harper D. Abdominal pain in children and symptoms of somatisation disorder.

Journal of Pediatric Psychology 1984, **9**, 77-86.

Garber J., Walker L. and Zeman J. Somatisation symptoms in a community sample of children and adolescents; a further validation of the children's somatisation inventory.

Psychological Assessment; a journal of Consulting and Clinical Psychology 1991, **3**, 588-595.

Garralda M. A selective view of child psychiatric syndromes with a somatic presentation. *British Journal of Psychiatry* 1992, **161**, 759-763.

Goldberg D. *Manual of the General Health Questionnaire*. N.F.E.R., 1978.

Knott F. *From symptom to consultation: a model of childhood somatisation and general practitioner attendance*.

Unpublished D.Clin Thesis 1995.

Parcel G. and Meyer M. Development of an instrument to measure children's health locus of control.

Health Education Monographs 1978, **6**, 149-159.

Reynolds C. and Richmond B. What I think and feel: a revised measure of children's manifest anxiety.

Journal of Abnormal Child Psychology 1978, **6**, 271-280.

Tinsley B. and Holtgrove D. Maternal health locus of control beliefs, utilisation of childhood preventative services and infant health.

Developmental and Behavioural Pediatrics 1989, **10**, 236-241.

Walker L., Garber J. and Greene J. Somatisation symptoms in pediatric abdominal pain patients: relation to chronicity of abdominal pain and parent somatisation.

Journal of Abnormal Child Psychology 1991, **19**, 379-394.

Wallston K., Wallston B. and De Vellis R. Development of the multidimensional health locus of control scales.

Health Education Monographs 1978, **6**, 206-213.

MAJOR RESEARCH PROJECT PAPER.

The role of maternal and child health beliefs in children's somatic symptoms and general practitioner consultations.

This research paper has been written according to the guidelines of the Journal of Child Psychology and Psychiatry. A copy of the author's notes and other relevant material may be found in Appendix Three.

THE ROLE OF MATERNAL AND CHILD HEALTH BELIEFS IN CHILDREN'S SOMATIC SYMPTOMS AND GENERAL PRACTITIONER CONSULTATION.

ABSTRACT

A model has been proposed (Knott 1995) to explain the origin of somatic symptoms in children, their appraisal by both the child and the mother and the resultant decision whether or not to consult a medical practitioner. In particular, the role of health beliefs was postulated to be important in both the appraisal and decision making process. The aim of this study was to test this hypothesis and to explore the way mothers attend to symptoms relative to their children. There was some support for the model. Beliefs in the 'chance' health locus of control dimension were higher in children with medium symptoms, and frequently attending children also categorised more symptoms as indicative of ill health than non-frequent attenders. Maternal beliefs in 'internality' was the strongest discriminator of the frequent and non-frequent attender groups. Most mothers underestimated their children's symptoms compared with the children themselves. Child depression was lowest in the groups where mothers were accurate and counter to expectation, mothers who overestimated classified fewer symptoms as indicating ill health than mothers who underestimated.

INTRODUCTION

It has been estimated that as many as one in ten children may somatise, that is suffer from somatic symptoms such as headaches and stomachaches without an observable

organic cause (Garralda 1992). A number of suggestions have been put forward to explain this phenomenon but the aetiology of somatising is not yet firmly established. Furthermore, children who somatise have been shown to attend their general practitioners more than other children for acute and accidental visits and less for 'well child' visits (Becker, Nathanson, Drachman and Kirscht 1977). However, reasons for consulting the general practitioner are more complicated than the symptom alone suggests (Bass and Cohen 1982), as there is no simple correspondance between the number of symptoms experienced and number of attendances.

A multifactorial model for the development of somatic symptoms in children and the action consequent on the symptom has been developed (Knott 1995). It proposes that there are a variety of factors responsible for the onset of symptoms, including both child and family factors. Once in existence, symptoms are then cognitively appraised by both the child and the mother. This appraisal process is influenced by health beliefs and results in the definition of the symptom as either innocuous or indicative of illness. A decision is then taken over the action which should follow, the decision being influenced by health beliefs, sociodemographic and psychological variables.

Children experience somatic symptoms for a range of reasons. Obviously, illness accounts for a large proportion of these (Schrire 1986), but a number of other factors have been implicated. Child personality characteristics such as perfectionism appear to make the child vulnerable to somatising (Garralda 1992). Family factors include a family history of ill health (Wasserman, Whittington and Rivera 1988) and a dysfunctional family system (Sherry, McGuire, Mellins, Salmonson, Wallace and Nepom 1991),

particularly if this serves to suppress the verbal expression of emotion (Kirmayer 1986). Children may copy their parents' somatising behaviour. Bennet-Osborne, Hachter and Richtsmeier (1989) found that children with pain were readily able to identify models of pain in their relatives and saw similar consequences for their own pain. It is also well established that anxiety and depression are commonly linked to somatic symptoms (Garber, Walker and Zeman 1991), Garber, Walker and Zeman (1990) found that children with recurrent abdominal pain had more emotional symptoms than children with no pain but did not differ from those with organic pain and hypothesised that two different psychological processes could be underlying the anxiety in the groups. Childhood somatising may also be linked to maternal psychiatric disorder. Mothers of children with recurrent abdominal pain have high levels of depression (Hodges, Kline, Barbero and Flanery 1985) and it has been suggested that these children are internalising their mother's distress.

Somatic symptoms in children arise for many reasons. Once in existence, the symptom is then cognitively appraised by both the child and the mother. The role of health cognitions in the appraisal process has been developed by cognitive-behavioural psychologists such as Salkovskis (1989). He argues that a crucial component in somatisation disorder is the cognitive misinterpretation of bodily signs and symptoms as indicating ill health. For instance, Barsky, Coeytaux, Sarnie and Cleary (1993) suggest that people with hypochondriasis hold faulty normative standards about health, believing more ambivalent symptoms to indicate illness than the general population.

Children's health beliefs have been relatively under-researched. It appears that young

children do not share their parent's beliefs, while older adolescents beliefs are strongly related to those of their mothers (Jacobs Quadrel and Lau 1990). It may be that a certain level of cognitive maturity is needed before health can be understood, and certainly young people do not think they can make decisions about attending the general practitioner before 14-15 and about surgery till 16-17 (Alderson 1992). Thus before this time, the mother is primarily responsible for the child's health care (Leach, Ridsdale and Smeeton 1993). With young children, mothers infer health problems from changes in behaviour such as not eating (Irvine and Cunningham-Burley 1991). However, it is plausible to suggest that that older children will make decisions about reporting symptoms to their mothers and that both the decision and their description of symptoms will be affected by their own health related cognitions and beliefs. Furthermore, a common finding in the research literature is that mothers under-report their children's symptoms (eg Harris-Canning, Hanser, Shade and Boyce 1993) suggesting that different processes could be operating in children's and mother's attention to children's symptoms. Further knowlege about both children's health beliefs and symptom reporting and mothers beliefs and appriaisal of their childrens' symptoms seems vital.

Once a symptom has been noticed and defined as indicating illness, the individual must make a decision about the action which should follow. This appraisal process informs the decision over what action, if any should be consequent on the symptom. The appraisal process is influenced by health beliefs, socio-demographic and psychological variables. The outcome may be to ignore the symptom, self treat or consult a medical practitioner. While mothers are generally very accurate in making decisions over medical consultation (Cunningham-Burley and Irvine 1987), every general practice has a group of 'heart sink'

patients (Downick 1992, page 491) who consult frequently and inappropriately for minor problems. The variables outlined above are important here.

The health locus of control has been shown to be important in relation to health care after becoming ill or defining ones self as ill (Rabinowitz, Malamed, Kasan and Ribak 1992). Health related decisions are postulated to be governed by the strength of beliefs along three dimensions, internality (ie the degree to which the individuals sees him/herself as able to influence health), chance (ie the degree to which health and illness are seen as uncontrollable) and powerful others (ie the degree to which medical practitioners and the media are seen as responsible for health). A high internal locus of control is related to the timely use of 'well baby' examinations (Tinsley and Holtgrove 1989), while a high belief in powerful others is found in frequent attenders (Corney 1990). A history of poor physical health is common in adult frequent attenders (Corney 1990) which may bias their attention to symptoms through the cognitive mechanisms described earlier. Psychological characteristics are clearly important. Child psychiatric problems account for a quarter of pediatric attendances (Coverley, Garralda and Bowman 1995), though this is rarely the explicit reason for consultation. High levels of depression and neuroticism are common in adult frequent attenders (Schire 1986). Anxiety, depression, and feelings of low self efficacy and self esteem may lessen an individual's resources for coping with somatic symptoms and increase the likelihood of consultation. In the same way, lack of social support may contribute to frequency of attendance (Corney 1990).

The model of somatising described above is attempting to tie together the many factors shown to be related to childhood somatisation. However, a number of areas remain

under-researched and the current study was designed with this in mind. In particular, it is looking at the relation of child and maternal health beliefs to symptoms in children aged 7 to 12, maternal appraisal of those symptoms and the decision to consult the general practitioner. There are four main areas are to be considered in detail.

1. The relationship of somatic symptoms to general practice attendance. The research literature produces contradictory findings in this area, which suggests that the relationship between symptoms and consultation is complex.

2. The relationship of child and maternal health beliefs to each other, to the reporting of child symptoms and to the frequency of general practitioner consultation. It is predicted that children with a high level of somatic symptoms will have faulty normative standards about health as will their mothers. It is also predicted that frequent attenders and their mothers will have low internal health locus of control beliefs but stronger beliefs in powerful others.

3. Maternal appraisal of their children's symptoms. It is predicted that overall, mothers will underestimate their children's somatic symptoms compared with the children themselves. The way mothers make decisions about their children's symptoms will be further explored and maternal decision making will be related to psychiatric symptoms and health beliefs.

4. Prediction of frequency of attendance using discriminant analysis.

METHOD

This study was carried out using a general practice in a predominantly white, middle class area of Glasgow.

SUBJECTS

The general practitioners supplied a list of all those children in the practice aged between 7 years 0 months and 12 years 11 months on 8.2.94 (n=586). They then marked on this list all those children they believed to be frequent attenders at the practice, but who lacked significant medical reasons for attendance. This generated a group of 66 children, known as the frequent attender group, the families of whom were contacted to ask if they would consider participating. There were no siblings in this group.

From the remaining children, a group of 66 was randomly selected by contacting the family of approximately every sixth child on the list. This constituted the non-frequent attender group. Children with significant medical problems were excluded. If the sixth child was a sibling of a child in the frequent attender group, then the next child on the list who was not a sibling was selected.

PROCEDURE

All volunteer mother/child pairs were visited at home for the collection of demographic information and administration of questionnaires. After hearing an explanation of the

study and information about confidentiality, the mother went into a separate room to complete her questionnaires. The researcher then stayed with the child, and either read out the questions or gave the child each questionnaire in turn, according to the child's age and preferences.

MEASURES

1. Demographic information.

This was obtained from the mother and consisted of child age, maternal age, maternal education and occupation, marital status and fathers education and occupation if living in the family home.

2. Somatic symptoms.

The child completed the Childhood Somatisation Inventory, CSI-child version (Walker, Garber and Greene 1991) for the two weeks prior to the interview. This comprises of a list of common somatic symptoms which are rated using a five point scale for the amount they troubled the child over a set time period. The total is calculated by summing the responses. The mother completed the same questionnaire (CSI-maternal version) with regard to the child's symptoms over the same time period.

3. Psychiatric symptoms.

The child completed the Children's Manifest Anxiety Scale (Reynolds and Richmond 1978) and the Depression Self Rating Scale for Children (Birleson, Hudson, Grey Buchannon and Wolff 1987). They were asked to think about how they had felt for the

past year before rating the scales. Mothers completed the General Health Questionnaire, GHQ-28 (Goldberg 1978).

4. Health norms.

Firstly, the parent and child versions of the Multidimensional Health Locus of Control were used (Wallston, Wallston and De Vellis 1978; Parcel and Meyer 1978). Each consists of three subscales assessing different dimensions of health beliefs, internality, chance and powerful others and are rated using a five point likert scale. The child version assesses the child's own beliefs along these dimensions, and the parental version looks at the mother's beliefs about her responsibility for her child's health. Totals are obtained for each subscale.

Secondly, the health norms sorting task (Barsky, Coeytaux, Sarnie and Cleary 1993) was used to look at the number of symptoms an individual thinks indicates ill health. Participants are asked to imagine a healthy person who develops each in turn of 24 common and ambiguous symptoms (eg headache). They are then asked to classify the individual as still healthy or not healthy. The score consists of the number of symptoms they classify as unhealthy. The procedure was identical for both children and mothers.

6. Number of general practice consultations

These data were obtained from the child's medical records and included consultations with the general practitioner and practice nurse. Visits for pre-holiday inoculations were excluded. The total number of visits over the two years prior to interview were counted.

RESULTS

Participants.

Altogether, 66 families offered to take part, but four were dropped because the children had passed their thirteenth birthday before their mothers replied. The response rate was therefore 50% overall. 58% of the frequent attender group and 39% of the non-frequent attender group participated.

The frequent attender group thus comprised 36 children and their mothers, 15 boys and 21 girls, mean age 10 years 4 months. The non-frequent attender group comprised of 26 children and their mothers, 11 boys and 15 girls, mean age ten years 0 months. In both groups, family size ranged from one to four children with the most frequent family size being two. Two children in each group were from one parent families.

General practitioner estimation of frequency of attendance.

A preliminary analysis checked the accuracy of the general practitioners estimation of child attendance. A t test of the number of consultations by gp's estimate of attendance showed that the frequent attender group consulted significantly more often than the non-frequent attender group [$t=4.4$, $p<.0005$], consulting on average 10.5 times compared with 4.8 times in two years. It was therefore decided to retain this grouping for further analyses.

1) Relationship of symptoms to general practitioner attendance.

The child symptom scores from both the CSI-child and CSI-maternal versions were not normally distributed and transformation could not correct this. A Mann-Whitney U test comparing CSI-child symptom score between frequent and non-frequent attender groups revealed a trend towards significant differences ($U = 342, p < .06$). Children in the frequent attender group reported a mean score of 9.9 while in the non-frequent attender group the mean was 6.3. However, there were no significant differences between groups using the CSI-maternal scores (frequent attender group 4.8, non-frequent attender group 4.2).

For the remaining analyses, due to the non-normal distribution of scores, children were grouped according to the level of somatic symptoms. Using the CSI-child version, the low symptom group was defined as 0-1 symptoms ($n=10$), medium as 2-7 ($n=26$) and high, 8 or more ($n=26$). Using the CSI-maternal version the low symptom group was defined as 0 symptoms ($n=14$), medium, 1-6 ($n=30$) and high 7 or more ($n=18$).

2) Relationship of child and maternal health beliefs to each other, to symptom reporting and to general practitioner consultation.

i) Relation of child and maternal beliefs to each other.

Spearman correlations showed that there was no significant correlation between maternal and child HLOC beliefs in 'Internality', 'Chance' or 'Powerful Others'. The group was

then divided by child age into two groups, younger children (7-10 years) and older children (11-13 years). Maternal and child health beliefs did not correlate in either group.

ii) Relation of child beliefs to child symptoms and general practitioner attendance.

In order to analyse the effects of child health beliefs on child reporting of symptoms and frequency of attendance, 3 (CSI-child group) by 2 (frequency of attendance) ANOVAs were carried out on each of the three child HLOC dimensions, 'Internality', 'Chance' and 'Powerful Others'. There were no significant effects or interactions for either the 'Internality' or 'Powerful Others' dimensions.

On the 'Chance' dimension there was no interaction and no effect of frequency of attendance, but the effect of child symptom group was significant [$F(2,56) = 3.6, p < .05$]. Scheffe post hoc tests showed that children in the low symptom group had higher 'Chance' scores (16.4) than children in the medium group (12.8) but that the high group did not differ from either (14.2).

A similar 3 by 2 ANOVA was carried out on child health norms score. The interaction was significant [$F(2,56) = 3.2, p < .05$]. Analysis of simple main effects showed that there were no differences in health norm scores in the low symptom group [$F(1,9) = 0.6, p = ns$], or the high symptom group [$F(1,24) = 1.4, p = ns$]. However, in the medium symptom group, high attenders rated significantly more symptoms as indicative of ill health than non-frequent attenders [$F(1,24) = 4.2, p < .05$]. Frequent attenders considered 12.6 symptoms to indicate ill health while non-frequent attenders considered 9 symptoms

to indicate ill health.

iii) Relation of maternal health beliefs to mother's estimate of child symptoms.

In order to determine the relationship between maternal health beliefs, maternal estimation of symptoms and general practitioner consultation, 2 (frequency of attendance) by 3 (CSI-maternal group) ANOVAS were carried out on the three maternal HLOC dimensions. There were no significant effects in the 'Powerful Others' subscales.

In the 'Chance' dimension, there was a trend to an interaction between mothers estimate of child symptoms and frequency of attendance [$F(2,56)=2.9, p < .06$]. As it was only a trend, analysis of simple main effects were not possible, but the means suggest that mothers in the high and low symptom groups have similar beliefs in 'Chance' whether frequent or non-frequent attenders. In the medium group, however, the mothers non-frequent attenders have a higher belief in 'Chance' than mothers of frequent attenders (13.4 and 10.6 respectively).

The 'Internality' dimension showed a main effect of frequency of attendance [$F(2,56)=5.9, p < .01$]. Mothers in the non-frequent attender group had higher 'Internality' scores than mothers of frequent attenders (31 and 28.4 respectively).

A two by three ANOVA was carried out on maternal health norms. There were no significant interactions or main effects.

3) *Maternal perception of their children's symptoms.*

i) Prediction that mothers would underestimate child symptoms.

A one tailed Wilcoxon signed rank test was used to compare mother and child symptom scores, which were not normally distributed. A significant difference was obtained ($Z = -4.0$, $p < .0001$) in the expected direction. Mothers reported a mean CSI score of 4.5 while the child CSI score was 8.3 over the same time period.

ii) Exploration of the way mothers interpret child symptoms

Although overall mothers underestimated their children's symptoms, there were in fact differences in both direction and degree of discrepancy. A new variable, 'maternal accuracy', was therefore formed by dividing mothers into four groups by comparing the maternal and child CSI. The groups were overestimators ($n=11$), accurate ($n=8$), minimal underestimators (ie between 1 and 3 points fewer than the child, $n=19$) and underestimators (more than four points fewer than the child, $n=24$).

This new variable was related to anxiety, depression and health norms using a series of one way analyses of variance.

TABLE 1 'Maternal accuracy'

VARIABLE	OVER	ACCURATE	MINIMAL	UNDER	P
Child Anxiety	6.6	7.2	8.7	11.9	.05
Child Depression	18.1	13.2	18.1	24.0	.01
Maternal Internality	27.9	30.7	29.8	29.6	NS
Maternal Powerful	14.8	13.2	14.3	13.7	NS
Maternal Chance	9.9	11.4	11.6	10.0	NS
Health Norms	7.3	9.8	10.9	10.1	.09
Child Internality	22.8	22.1	22.6	22.2	NS
Child Powerful	21.3	24.6	25.7	23.3	NS
Child Chance	14.5	15	13.8	13.3	NS
Child Health Norms	9.4	11.4	11.1	9.7	NS

Child anxiety and depression was related to maternal accuracy. Sheffe post hoc tests did not reveal significant differences between groups in anxiety, but the means suggest a general rise in child anxiety from the overestimator group, through the accurate to the underestimating group. Child depression scores were significantly lower in the accurate group compared with the underestimator group.

Maternal and child health locus of control beliefs were not related to maternal accuracy. There was a trend for an effect of maternal health norms, suggesting that the overestimating group scored lowest on the health norms task.

Two further chi square analysis showed that maternal accuracy was not affected by Maternal GHQ and was also not related to frequency of attendance.

4. Prediction of frequency of attendance.

A discriminant analysis was used to predict frequency of attendance using the factors above which had been shown to be related to either somatic symptoms or to frequency of attendance. Depression scores were excluded because there is evidence that the two are highly correlated and that anxiety has the mediating role in somatising (Jolly, Wherry, Weisner, Reed, Yule and Jolly 1994).

TABLE 2 Discriminant analysis

	Standardized canonical discriminant function coefficient	Pooled within-group correlation between variables and canonical function
Parent internality	.815	.564
Child anxiety	-.369	-.502
mothers accuracy	-.624	-.342
Child symptom group	.259	-.321
Mothers estimate	-.424	-.220
Maternal health norms	.163	.178
Maternal GHQ score	.404	.146
Parent chance	.240	.094
Child health norms	.143	.090
Child chance	.193	.033

The frequent attender group loaded -.482 and the non-frequent attender group loaded .638.

This analysis showed that maternal internality was the main discriminator of frequency of attendance. High internality was related to non-frequent attendance. The second most important discriminator was child anxiety; high anxiety was related to frequent

attendance. The next variables to enter the factor were symptom variables - the mothers classification, the child's somatic symptom group and the mothers estimation group. Frequent attenders were more likely to come from the overestimator and accurate group and non-frequent attenders from the underestimator groups. A higher number of somatic symptoms also discriminated the frequent attenders from the non-frequent. This discriminant function resulted in 72.6% of cases overall being classified accurately. 74.3% of frequent attenders and 70% of non-frequent attenders were classified accurately.

DISCUSSION

This research lends some support to the model of somatising and decision making described above. Children's and mothers' health beliefs play a part in both the reporting of symptoms and also the decision to attend the general practitioner.

Overall levels of somatic symptoms were not strongly related to consultation rates. This supports Jacobs Quadrel and Lau (1990) who found that ill health was not an important variable in adolescent consultations. Of course, in this study, symptoms over a two week period were related to attendance rates over a much longer, two year period. There may therefore be a stronger relationship between symptoms and consulting on any one occasion.

Interestingly, mother's estimations of children's symptoms were not related to attendances while there was a trend for the children's own reports of symptoms to be related. Children in the frequent attender group reported more symptoms than children in the

non-frequent attender group. This finding is perhaps surprising given that mothers make the majority of health related decisions relating to their children (Phipps 1991). Mothers cannot be making these decisions solely on the basis of perceived somatic symptoms, and it lends credence to the argument that the relationship between symptom and consultation is complex and multifaceted.

The second part of the model argued the importance of maternal and child health beliefs in the reporting of somatic symptoms. Child and maternal health beliefs did not correlate in the age group studied here, which supports researchers such as Fox (1991) who suggest that a certain level of cognitive maturity is required before beliefs can be shared. However, children's health beliefs appear to be important in appraisal of symptoms and consultation process.

Children's beliefs in 'chance' as an explanation for illness appear to be related to reporting of somatic symptoms. Children in the low symptom group have the highest belief in chance, followed by those in the high symptom group, with children in the medium group reporting the lowest belief in chance. Perhaps children reporting few or no symptoms have little experience of illness and have therefore not had to develop ideas about control of health and put illness down to chance. Children in the high symptom group may perceive themselves as ill and, with little control over this, again believe in chance. Children in the medium symptoms on the other hand may have more perceived control over their health and hence a lower chance score.

The children's health norms score suggested the importance of children's health beliefs

to both symptom reporting and general practitioner consultation, since there was an interaction between symptom group and frequency of attendance. In the low and high symptom groups, health norms were not related to frequency of attendance. However, in the medium group, frequent attenders categorised more symptoms as indicating ill health than non-frequent attenders. This again suggests that children with low or high symptoms have black and white views about the nature of health, which are not related to their attendance patterns. Those in the medium group have more varied experiences of health and are thus more likely to link their appraisal of symptoms to action. Perhaps most importantly, these data support the notion that child beliefs and appraisal of symptoms are important in decisions over health, even in this young age group.

Maternal health beliefs were also related to symptom reporting and general practitioner consultation. In the medium symptom, beliefs in 'chance' are related to general practitioner attendance, with non-frequent attenders having a higher belief in 'chance'. This was not the case for the low or high symptom group. As with the children, mothers of children with low or high symptom may either have no perceived control over the child's illnesses and hence their beliefs about the illness do not inform their decision about consulting. Mothers of children in the medium symptom group might have more opportunity to develop a sense of control, and hence those with a low belief in 'chance' are more likely to attend.

Unlike the children's health norms, maternal health norms were not related to either maternal symptom reporting or general practitioner consultation. Usherwood (1991) questions the validity of measures based on hypothetical situations and certainly the current study may be criticised for not making the situations directly related to the mother

and child. It would be interesting to re-run this task asking the mother to imagine that their own child had developed each symptom in turn and to categorise him/her as ill or healthy. A relationship might then emerge between the health norms sorting task and general practitioner attendance.

However, as predicted, maternal beliefs were important in the decisions over the action to follow symptom appraisal. Maternal internality was related to attendance, with higher internal locus of control being found in non-frequent attenders. The predicted relationship between a strong belief in powerful others and frequent attendance, on the other hand, was not found. This may be related to the sample, which was largely middle class and well educated, a group and therefore likely to hold relatively low external locus of control beliefs.

The way mothers classify their children's symptoms was also hypothesised to be important. It was predicted that mothers would underestimate their children's symptoms. Taking the group as a whole this was true; the mother's mean score was about half of the children's score. However, a more detailed breakdown revealed that this was not the case for all mothers. About a third of the mothers were either accurate or overestimated their children's symptoms. Two factors seem to be important. Firstly, child depression was lowest in the group where mothers were accurate and highest in the group where mothers underestimated the symptoms. Depressed children may be unable to talk to their mothers about their feelings, but it is also possible that mothers in this group do not attend to their children's distress. Secondly, mothers who overestimated classified fewer symptoms as indicative of ill health in the health norms sorting task. This is contrary to

what would be intuitively expected. These mothers may be aware of the child's symptom but do not classify it as indicating illness. Neither child or maternal health locus of control beliefs were related to maternal accuracy and there was no relationship between the mother's perception of symptoms and frequency of consultation.

Discriminant analysis supported the third part of the model, which suggested that health beliefs and psychological factors would influence the decision to attend the general practitioner. The most important predictor of child consultation rate was the mother's belief in internality. Mothers with low internal health locus of control beliefs are more likely to consult the general practitioner. The second most important discriminator was child anxiety, with anxious children falling into the frequent attender group. Anxiety may interfere with the child's ability to cope with a symptom and hence the child may be more insistent about consultation. Somatic symptoms and maternal accuracy were the next variables to enter the analysis, but added relatively little to the discriminant function. 72% of children were correctly classified using these variables, which suggests that factors other than health beliefs, symptoms and anxiety are also important.

Although the data presented here support the model in some measure, there are nonetheless some difficulties in interpreting them. Firstly, the data are cross sectional and hence causality cannot be inferred. Health beliefs may arise as a result of the symptoms experienced or vice versa. Another weakness of the study is that health beliefs were measured in general terms and related to general tendencies in consulting. A different picture may therefore emerge if health beliefs were tied to specific symptoms and consultations. Future research should be designed to link beliefs more closely to decisions

and also to track longitudinal changes in beliefs, symptoms and consultation, which would help establish the causal nature of beliefs.

CONCLUSIONS AND IMPLICATIONS.

This study goes some way to supporting the model of symptom origin, appraisal and general practitioner consultation outlined above. There is no direct relationship between symptom and consultation and both child and maternal health beliefs have been shown to be important in the reporting of symptoms and decision to consult. Indeed, maternal internality is the most important factor in discriminating frequent and non-frequent attenders. Child psychiatric problems play a part in maternal judgements of symptoms, which supports the need for a complex multifactorial model.

The data presented above have implications for health education programmes aimed at reducing general practitioner consultations. High maternal internality is linked to non-frequent attendance and thus it is logical to suggest that programmes designed to increase mother's beliefs in their own ability to influence their children's health will reduce unnecessary consultations. The link between high child anxiety and frequent attendance shown by the discriminant analysis suggests that child coping skills are also important. The relationship between symptoms and consultation is complex and multidimensional and health education programmes must be tailored to take this into account.

REFERENCES

Alderson P. (1992). Everyday and medical life choices: decision making among 8 to 15 year olds.

Child: care, health and development, **18**, 81-95.

Barsky A., Coeytaux R., Sarnie M. and Cleary P. (1993). Hypochondriacal patients beliefs about good health.

American Journal of Psychiatry, **150**, 1085-1089.

Bass L. and Cohen R. (1982). Ostensible versus actual reasons for seeking pediatric attention: another look at the parental ticket of admission.

Pediatrics, **70**, 870-874.

Becker M., Nathanson C., Drachman R. and Kirscht J. (1977). Mother's health beliefs and children's clinic visits.

Journal of Community Health, **3**, 125-135.

Bennet-Osborne R., Hachter J. and Richtsmeier A. (1989). The role of social modelling in unexplained pediatric pain.

Journal of Pediatric Psychology, **14**, 43-61.

Birleson P., Hudson I., Grey Buchannon D. and Wolff S. (1987). Clinical evaluation of a self rating scale for depressive disorder in children.

Journal of Child Psychology and Psychiatry, **28**, 43-60.

Corney R. (1990). Sex differences in general practice attendance and help seeking for minor illness.

Journal of Psychosomatic Research, **35**, 525-534.

Coverley C., Garralda M. and Bowman F. (1995). Psychiatric intervention in primary care for mothers whose schoolchildren have psychiatric disorder.

British Journal of General Practice, **45**, 235-237.

Cunningham-Burley S. and Irvine S. (1987). 'And have you done anything so far?' An examination of lay treatment of children's symptoms.

British Medical Journal, **195**, 700-702.

Dowric C. (1992). Why do the O'Sheas consult so often? An exploration of complex family illness behaviour.

Social Science and Medicine, **34**, 491-497.

Fox J. (1991). Mothers influence on their adolescents tendency to seek medical care.

Journal of Adolescent Health, **12**, 116-123.

Garber J., Zeman J. and Walker L. (1990). Recurrent abdominal pain in children: psychiatric diagnoses and parental psychopathology.

Journal American Academy of Child and Adolescent Psychiatry, **29**, 648-656.

Garralda M. (1992). A selective view of child psychiatric syndromes with a somatic presentation.

British Journal of Psychiatry, **161**, 759-753.

Goldberg D. (1978). *Manual of the General Health Questionnaire*. NFER

Harris-Canning E., Hanser S., Shade K. and Boyce T. (1993). Maternal distress and discrepancy in reports of psychopathology in chronically ill children.

Psychosomatics, **34**, 506-511.

Hodges K., Kline J., Barbero G. and Flanery R. (1985). Depressive symptoms in children with recurrent abdominal pain and their families.

Journal of Pediatrics, **107**, 622-626.

Irvine S. and Cunningham-Burley S. (1991). Mother's concepts of normality, behavioural change and illness in their children.

British Journal of General Practice, **41**, 371-374.

Jacobs Quadrel M. and Lau R. (1990). A multivariate analysis of adolescents orientation towards physician use.

Health Psychology, **9**, 750-773.

Jolly J., Wherry J., Weisner D., Reed D., Rule C. and Jolly J. (1994). The mediating

role of anxiety in self-reported somatic complaints of depressed adolescents.

Journal of Abnormal Child Psychology, **22**, 691-702.

Kirmayer L. (1986). Somatisation and the social construction of illness experience. In S. McHugh and M. Vallis (Eds) *Illness behaviour: a multidisciplinary model* Plenum Press.

Knott F. (1995). *From symptom to consultation: a model of childhood somatisation and general practitioner attendance*.

Unpublished D. Clin. Psy. Thesis.

Leach J., Ridsdale L. and Smeeton N. (1993). Is there a relationship between a mother's mental state and consulting the doctor by the family. A study in a military general practice. *Family Practice*, **10**, 305-311.

Parcel G. and Meyer M. (1978). Development of an instrument to measure children's health locus of control.

Health Education Monographs, **6**, 149-159.

Phipps S. (1991). Family system functioning, family health roles and utilisation of physical health services.

Lifestyles, **12**, 23-41.

Rabinowitz S., Malamed S., Kasan R. and Rubak J. (1992). Personal determinants of

health promoting behaviour.

Public Health Review, **20**, 5-14.

Reynolds C. and Richmond B. (1978). What I think and feel; a revised measure of children's manifest anxiety.

Journal of Abnormal Child Psychology, **6**, 271-280.

Salkovskis P. (1989). Somatic problems.

In K. Hawton, P. Salkovskis, J. Kirk and D. Clark (Eds). *Cognitive behaviour therapy for psychiatric problems*. Oxford University Press.

Schire S. (1986). Frequent attenders - a review.

Family Practice, **3**, 272-275.

Sherry D., McGuire T., Mellins E., Salmonson K., Wallace C. and Nepom B. (1991).

Psychosomatic musculoskeletal pain in childhood: clinical and psychological analyses of 100 children.

Pediatrics, **88**, 1093-1099.

Tinsley B. and Holtgrove D. (1989). Maternal health locus of control beliefs, utilisation of childhood preventative services and infant health.

Developmental and Behavioural Paediatrics, **10**, 236-241.

Usherwood T. (1991). How valid are responses to questions about behaviour in

hypothetical illness situations?

Journal of Public Health Medicine, 13, 115-119.

Wallston K., Wallston B. and De Vellis R. (1978). Development of the multidimensional health locus of control scales.

Health Education Monographs, 6, 149-159.

Wasserman A., Whittington P. and Rivera F. (1988). Psychogenic basis for abdominal pain in children and adolescents.

Journal of the American Academy of Child and Adolescent Psychiatry, 27, 179-184.

SMALL SCALE SERVICE EVALUATION PROJECT

Developing the user friendly approach to family therapy: families' perceptions of the one way screen in the first meeting.

This service evaluation has been written according to the guidelines of the Journal of Family Therapy. Authors notes and other material relating to it may be found in Appendix Four.

**DEVELOPING THE USER FRIENDLY APPROACH TO FAMILY THERAPY:
FAMILIES' PERCEPTIONS OF THE ONE WAY SCREEN IN THE FIRST
MEETING.**

ABSTRACT

A survey was conducted of individual's perceptions of the first family interview which uses a one way screen with live consultation. There was a high response rate and the majority of individuals perceived the overall experience as useful. Reading an information leaflet in advance and feeling able to share concerns about the process with the interviewer were related to forgetting about the screen more quickly, and perceiving both the consultation with colleagues and the overall meeting as useful. A number of suggestions are made to make this first meeting more 'user friendly' but questions are also raised which require further study before they can be incorporated into the procedure.

INTRODUCTION.

Clients' perceptions of their treatment experiences have become an important area within quality assurance over the last few years. However, Treacher (1992) argues that the experiences of those participating in psychotherapy and particularly in family therapy have been under-researched. He further argues that is 'disastrous' for therapists to ignore

their clients' feelings about therapy, and believes that talking to clients is the only way to develop 'user friendly family therapy'.

While Treacher (1992) postulates the need for development in a number of areas such as the therapeutic alliance, one area of particular importance is the clients' feelings about the one way screen and observation by other team members. This is routinely used in family therapy, particularly as part of the assessment process. Howe (1989, cited by Treacher 1992) reported that the majority of clients found the technology unsettling and disliked the feeling of 'their' therapist being controlled by an unseen but all-knowing team. Similarly, Dorkins and Aylard (1995) found that when adult psychotherapy clients were sent a letter explaining the use of the one way screen and inviting them to decline it if they wished, nearly a quarter did so.

Reimers and White (1995), working in the same team as Treacher, conducted a series of detailed interviews about the family therapy process and outcome with discharged families, which they then used in the development of 'user friendly family therapy'. Their work demonstrates the utility of the quality assurance process where current practice is inspected and standards set before quality control and assurance takes place (Dickens 1992). Initially, half perceived the one way screen as useful, saying they were able to forget about it quickly and that they knew the other team members were there for their benefit. However, half perceived it as unhelpful. They reported that the screen made them feel nervous and self conscious, that they felt labelled as a problem and felt that if the other team members had anything to say, they should say it to them directly. As a result of these comments, a number of changes were made (Reimers 1995). Firstly,

team members were introduced at the start and the process was humanised by referring to them by name rather than as 'my colleagues'. The number of people behind the screen was reduced to two or three and families were explicitly asked for permission for visitors or trainees to be included. Finally, more time was spent introducing the screen and discussing concerns about it. Following another set of interviews, further changes were made, particularly in reducing the number of telephone calls from team members during the sessions, and in changing the content of the calls from directives to sharing perspectives. A last set of interviews revealed that the percentage of families perceiving the screen as useful had increased by about 20%.

Reinmer's and Treacher's work shows clearly the effectiveness of asking families what they think about the processes in which they are involved. However, there are a number of ways in which this research could be carried forward. The questions were open ended and asked respondents simply what they found helpful or unhelpful about the one way screen. More detailed analysis about the process and individual's feelings and experiences will be useful in further developing the user friendly approach.

The present study falls clearly into the bracket of establishing a 'quality template' against which standards can be set. It is related to consumer satisfaction and not outcome (Stallard and Chadwick 1991). Following on from Treacher' (1992) work, it aims to look in more detail at the use of a one way screen in the initial family meeting at a child and family clinic. Responses from clients will be used to develop a standard for the provision of information and method of using the screen. This will then be incorporated into the audit cycle where practice will be evaluated against this standard.

METHODS.

DESCRIPTION OF THE CHILD AND FAMILY CLINIC.

The teams in the Child and Family Clinic in which this service evaluation was based operate using a model of systemic family therapy. There are two teams covering two geographical areas, each comprising a psychologist, social worker and psychiatrist.

Referrals come from a variety of sources, though GP referrals predominate. Referral agencies are aware of the nature of teams' work and in particular the first sessions, as leaflets about the clinic are routinely sent to referrers (see appendix 4). Therefore some families may be given information about the clinic by the referrers. However, all families are sent an information leaflet with the initial appointment letter (a copy of which may be found in appendix 4). Amongst other things, this outlines the nature of the oneway screen and the procedure of the first session.

On arrival at the clinic, families are met in the waiting room by the interviewer and the use of the one way screen with live consultation is again explained. The rationale given is that all first interviews are screened because 'several heads are better than one', and that the team is there to help the interviewer. The family's permission is then sought to continue as planned. If anyone objects to the screen, the family is either interviewed unobserved or they are joined by a team member in the interview room. The interview lasts for approximately an hour and a half, with a consultation break of about 15 minutes after an hour. The family are left alone in the interview room at this point.

DEVELOPMENT OF THE QUESTIONNAIRE

As there is little literature on which to base the questionnaire, it was developed in consultation with members of the Child and Family Clinic and covered two areas. The first looked at procedural aspects of the use of the one way screen and included prior knowledge of the screen, the introductory leaflet, the information given at the start of the session, whether families felt able to share their concerns about the screen and whether they would like to meet the other team members. The second involved perceptions of the process and included asking how quickly they forgot about the screen, how they felt about the consultation break and how they felt about the overall usefulness of the session. Individuals were asked to tick predetermined ratings and to add their own comments. A copy of the questionnaire may be found in appendix 4.

SAMPLE AND PROCEDURE

The questionnaires were given to all families using the one way screen for their first appointment at the clinic over a three month period (mid-January to mid-April 1995). Families were asked to complete it during the consultation break. It was explained that the study was being carried out by 'someone in the department' (ie not the interviewer) and that it's purpose was to try to improve the service for families. Families were allowed to choose how many members would fill it in, and this varied from family to family. In order to maintain confidentiality, no identifying information was collected.

Over the three month period, a total of 89 questionnaires were completed, from 43

different families. During this period, 45 families were seen for first appointments. One refused the use of the screen and one was not asked to complete the questionnaire because of the level of their distress. Therefore 95% of families who attended the clinic for the first time during the three month period completed at least one questionnaire.

RESULTS

A. PERCENTAGE RESPONSE TO EACH QUESTION.

The majority of questions were completed by 86 to 89 (maximum) of the respondents. Two questions, which asked about the information given at the start of the session and about whether individuals felt able to share their concerns about the screen were left blank by about 10% of respondents.

88% of respondents said that they knew what a one way screen was before coming to the clinic. However, only 42% reported that they had read the information leaflet prior to their appointment. Of those individuals, 95% found it helpful.

A lower percentage of respondents felt able to share their concerns about the screen. Only 81% of those answering this question felt that this had been possible.

Respondents experience of forgetting about the screen was mixed. 29% forgot within 5 minutes, 10% within 5 to 15 minutes, 3% between 15 and 30 minutes. 28% reported that they forgot about the screen 'sometimes' while the remaining 30% never forgot about the screen. However, the majority (80%) felt that the overall experience had been useful,

with only 6% not finding the meeting helpful;. Respondents were rather less sure about the discussion break. 59% reported not knowing whether or not it was helpful, but only 9% found it difficult. The remaining 32% felt the discussion break was helpful.

B. WHAT AFFECTS THE FAMILIES' PERCEPTION OF THE ONE WAY SCREEN.

The effects of procedural aspects on families' perceptions of the screen have been presented in the form of graphs. Only data indicating an effect have been reported below. Client comments have also been integrated into this section.

1. FORGETTING THE SCREEN.

i) Prior knowledge of the screen. (Graph 1).

There appears to be some effect of prior knowledge of the screen. Those who had prior knowledge were more likely to forget about the screen within a short time, while those with no prior knowledge tended not to forget, or to forget sometimes.

ii) Reading the leaflet. (Graph 2).

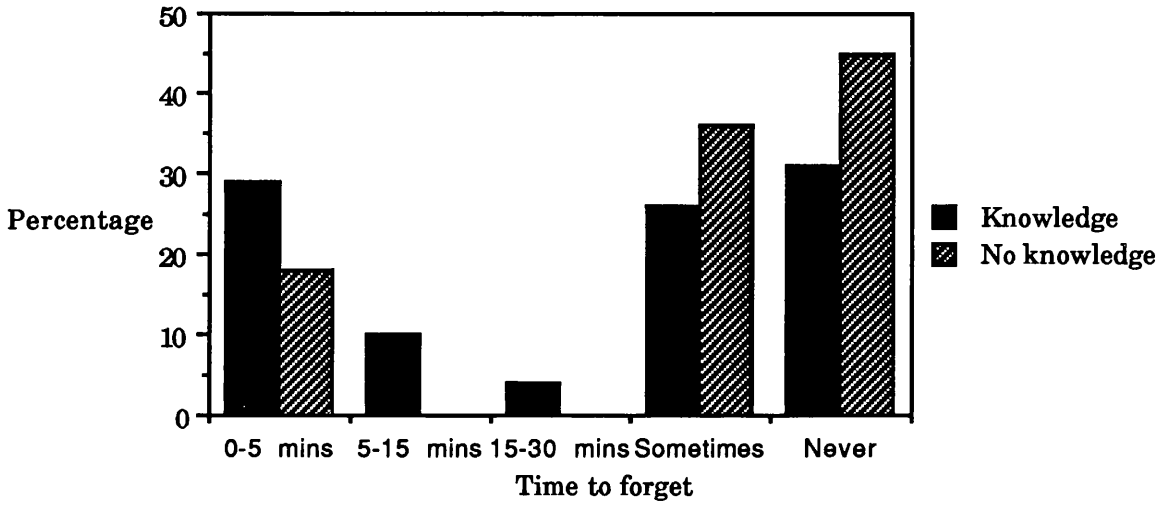
Again, there appears to be some effect of reading the leaflet. Those who had not read the leaflet were less likely to forget about the screen within 15 minutes and more likely not to forget.

iii) Feeling able to share concerns. (Graph 3).

Feeling able to share concerns about the screen appears to make it easier to forget about the screen during the session.

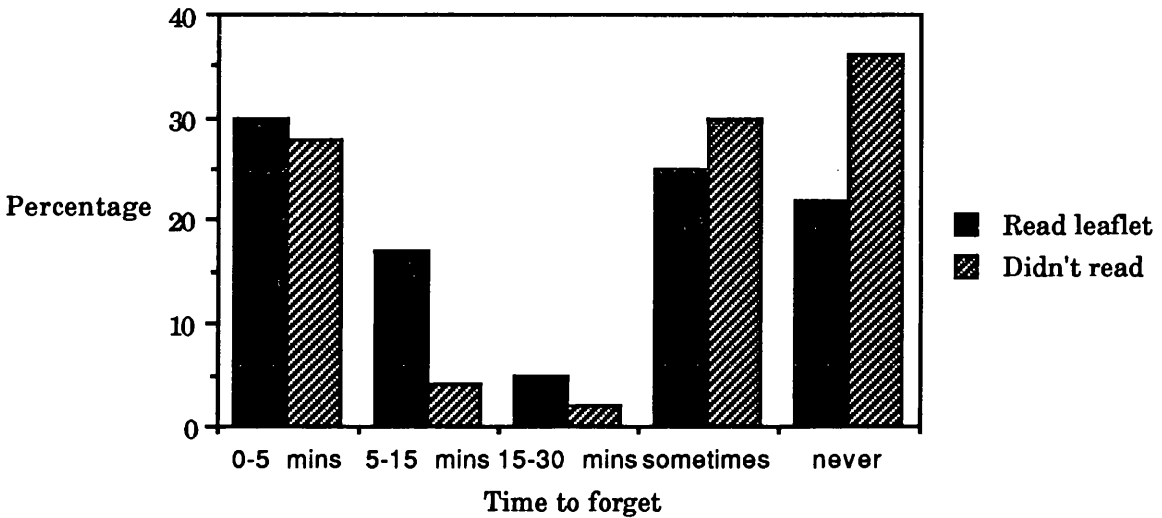
1

Effect of prior knowledge of the screen on time to forget



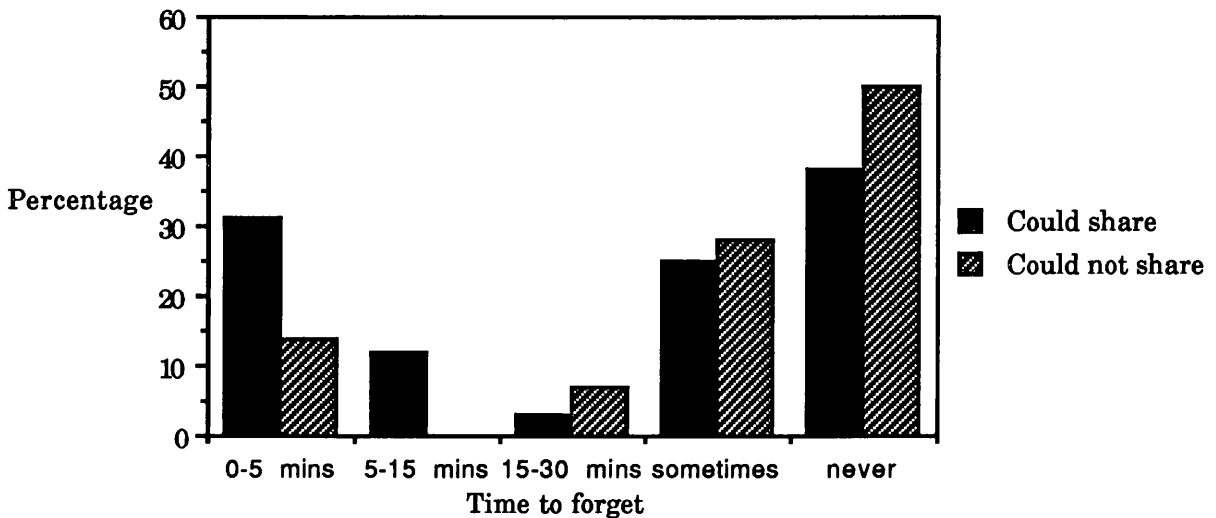
2

Effect of reading leaflet on time to forget about the screen.



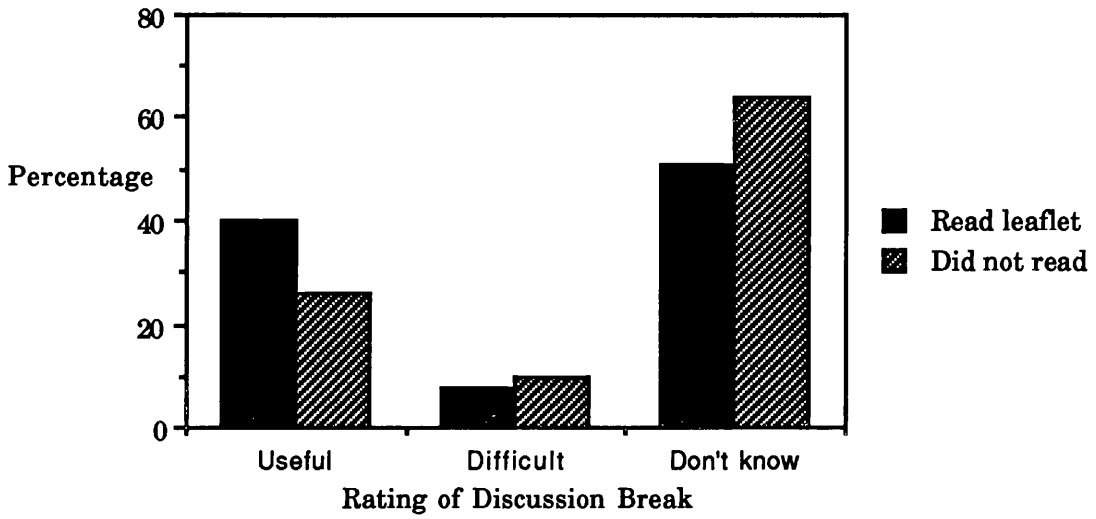
3

Effect of feeling able to share concerns on time to forget about the screen.



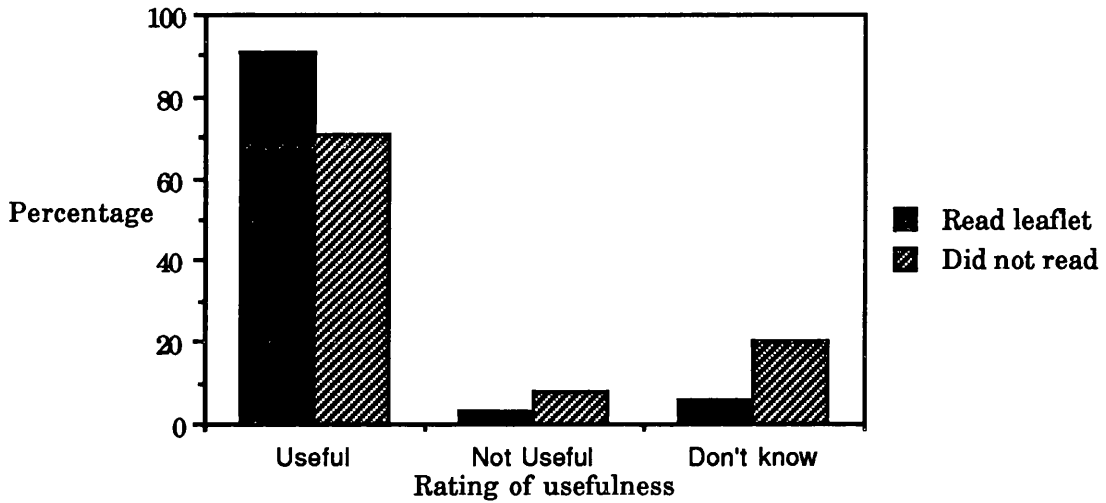
4

Effect of reading leaflet on rating of discussion break.



5

Effect of reading leaflet on rating of overall usefulness of session.



2. FEELINGS ABOUT THE DISCUSSION BREAK.

i) Reading the leaflet. (Graph 4).

Individuals who had read the leaflet were more positive about the discussion break and less likely to report that they 'didn't know' about its value, than those who had not read the leaflet.

Written comments about the discussion break were mixed. Two respondents wondered what was being said about the family.

'The team could be talking about anything - we don't know as we are not in the same room.'

'Wondering what they are saying about my family.'

One respondent felt it prolonged an uncomfortable session.

'Maybe people want it over and done with - like me for instance.'

One respondent saw the break in positive terms.

'Better having a break 1) to have a rest 2) so that if someone behind the screen suggests any questions or topics then that can be brought up at this meeting.'

3. OVERALL VIEW OF THE SESSION.

i) Reading the leaflet. (Graph 5).

Reading the leaflet appears to be related to finding the overall experience useful.

Written comments about the overall experience came from three respondents, two of whom were positive.

'Want to obtain as broad a view as possible about our problems, especially with regard to H's future and in connection with the adoption and whether we should take steps to encourage her to find her birth parents.'

'I feel the screen is a very good idea, because not only the interviewer able to see how the child/children react to certain things, but there is another person able to observe the situation also, which in this day and age is a very good thing. I find what one person says they have witnessed is not enough to be taken into consideration in matters of extreme importance to the child.'

One did not find the experience useful.

'I didn't think it was helpful because all they are doing is listening into the conversation.'

C. OTHER SUGGESTIONS

There were a variety of other suggestions and comments made by respondents.

1) Concerns about the screen and ability to share those concerns.

5 respondents noted that they had no concerns about the screen. Only one person commented on why he/she had not been able to share concerns and reported being 'too tense'. One person felt he/she had not been given a choice in the use of the screen and one felt it would be better to have the other team members in the same room. One

reported that:-

'I didn't want to look at the screen but I forgot it was there.'

2. Information given at the start of the session.

One respondent wanted to know whether the session was being videotaped. Another commented that:-

'Rather artificial environment. Would be helpful to be told to behave as one normally would at home.'

Another pointed out that he/she had not been told how many people were behind the screen.

'Helpful to know how many people discussing our problem - other than this I think it is easier to be face to face with one person than sitting among a great number.'

3) Miscellaneous

Two commented that the room was too hot.

One respondent wrote

'I think it would have been more comfortable if there was music to listen to because music keeps you relaxed and calm.'

DISCUSSION

There was a high response rate and overall, respondents were very positive about the

information they received about the screen and their experiences of it. 80% found the overall experience useful, most were able to forget about the screen at least some of the time, and over 80% either thought the discussion break was useful or did not mind it. This is in contrast to Reimer's and White's (1995) finding that less than 50% of their sample found the one way screen helpful.

There are a number of factors which need to be examined in relation to the high positive rating of the one way screen. Skaife and Spall (1995) point out the effects of social desirability when someone from the service is conducting the survey, since the process of requesting feedback implies the question 'do you like me?' Even postal surveys may not escape since many have a very high satisfaction score, in combination with a very low response rate (Stallard and Chadwick 1991). This process may well have been operating here, since the questionnaire had to be handed directly back to the interviewer. The effects of social desirability may have been further complicated by a fear that non-participation or negative feedback would affect the therapeutic process, since it was administered right at the start of the meetings. Families also completed it before the feedback from the consultation break was given to them, which could have added to their anxiety and also made it hard for them to evaluate the utility of the consultation break. To attempt to address some of the problems of social desirability, families were told the research was being conducted by 'someone in the department' (ie not the interviewer) and the forms were also anonymous. Moreover, Reimers and White (1995) conducted face to face interviews, in which it could be assumed that the social desirability process would be stronger, and yet 50% of respondents were still able to discuss their negative feelings about the screen.

Balanced against the concern that the positive ratings may have been unrealistically high, the response rate was extremely good. 95% of families attending the clinic for a first family meeting completed at least one questionnaire. Skaife and Spall (1995) achieved only a 40% response rate with a postal survey conducted by a researcher not directly connected with the service, which they argued would overcome some of the problems of more direct requests for feedback. The advantage of asking families to complete the questionnaire on the premises therefore achieves a very high response rate. Further examination is needed to weigh up the advantages of this high response rate against possible effects of social desirability.

Notwithstanding the difficulties outlined above, the results suggest some important influences on client experiences of the one way screen. In particular, reading the leaflet in advance of the appointment (which was uniformly rated as useful) affected all three measures of the client's experience. Those who had read the leaflet were able to forget about the screen more quickly, and felt more positive about the discussion break and the overall experience. Given that less than half of the group had read the leaflet, it suggests that an immediate need is to encourage more people to read it or to find a way of passing on the information in a different form. A further survey is needed to find out from families why they had not read the leaflet which was sent to them. This results from this could then be used to change the process by which they are given the information about the first family meeting.

There are three ways in which this might be carried out. The first involves redesigning the leaflet if this seemed appropriate from the audit, if for example families felt its

complexity put them off reading it. An second alternative would be to find out how much information referrers give families about the screen and to increase the dissemination of information this way. Cookson and Fuller (1995) found that referrers to a child and family service, particularly general practitioners, wanted more information available both to themselves and families about the nature of the service. It may therefore be possible to increase the information to both simultaneously. Although referrers receive an information leaflet, it is possible that they do not read it, or that they forget the information contained in it. Another survey is required to find this out. As a third alternative, Dorkins and Aylard (1995) found that the refusal rate for screened adult psychotherapy sessions dropped when clients were telephoned in advance to describe the screen, rather than receiving a letter about it. The DNA rate did not alter suggesting that individuals felt comfortable about refusing to use the screen over the telephone. Therefore, another possibility for the Child and Family Clinic would be to telephone families in advance to explain the procedure of the first family meeting, though there are practical difficulties where families do not have telephones or where the adults work during the day. The time involved in this additional work may also be prohibitive.

The survey demonstrated that nearly a fifth of the families felt unable to share their concerns about the screen. Unfortunately, only one respondent included a comment about why this was and reported being 'too tense'. Feeling unable to share their concerns meant that respondents were less likely to forget about the screen. It was possible that these individuals were worried about how they appeared or what was being said about them, but it is not possible to know this without another survey. This may demonstrate that the system of introducing the screen should be changed. For instance, it may be useful to ask

families explicitly what their concerns are about the screen, as a way of giving them permission to air their views.

The current survey also shows that families would appear to value the chance to meet the team. One respondent explicitly asked how many had been present behind the screen and only 2% said they would not like to be introduced to the other team members. This is supported by Reimers (1995), who found that part of the way to 'humanise' the process was to introduce team members. Families should be routinely told of how many people the team consists, asked if they would like to meet them and then given the choice of before or after the session.

In summary, this service evaluation of clients' perceptions of a one way screen achieved a high response rate and was rated as useful by the majority of respondents. Those who had read the information leaflet in advance were more likely to forget about the screen and to perceive the discussion break and overall experience as useful. Since only half the families read the leaflet, a further survey is needed to identify the reasons for this and to develop a system where more families can receive the information in advance. A number of individuals felt unable to share their concerns about the screen but unfortunately the data collected here does not shed light on why this is, again pointing to the need for further surveys. Finally, families would clearly value the opportunity of meeting team members either before or after the session. As Reimers (1995) found, the process of developing user friendly family therapy is not straightforward. The service evaluation conducted here has promoted some ideas for change which needs to be implemented and then evaluated. However, it has also demonstrated the need for further information to be

gathered before a detailed standard can be finalised.

REFERENCES

Cookson D. and Fuller G. (1995) Referrer appraisal of a child and family service.

Clinical Psychology Forum, **March**: 19-21.

Dickens P. (1994) There's more to quality than clinical audit.

Clinical Psychology Forum, **May**: 14-17.

Dorkins E. and Aylard P. (1995) Innocent bystanders? Observation in psychotherapy.

Psychiatric Bulletin, **19**: 18-20.

Reimers S. (1995) Research and practice, practice and research.

In S. Reimers and A. Treacher (Eds) *Introducing user friendly family therapy*. Routledge.

Reimers S. and White C. (1995) Learning from users.

In S. Reimers and A. Treacher (Eds) *Introducing user friendly family therapy*. Routledge.

Skaife K. and Spall B. (1994) An independent approach to auditing psychology services for adult mental health clients.

Clinical Psychology Forum, **March**: 14-18.

Stallard P. and Chadwick R. (1991) Consumer evaluation: a cautionary note.

Clinical Psychology Forum, **August**: 2-4.

Treacher A. (1992) Family therapy: developing a user friendly approach.

Clinical Psychology Forum, **October**: 26-30.

SINGLE CLINICAL CASE RESEARCH STUDY.

A single case example of cognitive behaviour therapy for hypochondriasis: implications for research.

This research study has been written according to the guidelines of the journal Behaviour, Research and Therapy. A copy of the author's notes may be found in Appendix Five.

A SINGLE CASE EXAMPLE OF COGNITIVE BEHAVIOUR THERAPY FOR HYPOCHONDRIASIS: IMPLICATIONS FOR RESEARCH.

ABSTRACT

The cognitive behavioural formulation of the aetiology and treatment of hypochondriasis is described and illustrated with a single case study. It is proposed that the utility of such a case is in generating research questions to be tested using large scale controlled research, examples of which are given.

INTRODUCTION

Hypochondriasis is a disorder with a somatic presentation which involves the misinterpretation of innocuous physical signs and sensations as evidence of physical illness, despite the lack of organic disorder and which persists despite medical reassurance (American Psychiatric Association 1987). It causes much distress to the sufferer, and both frustration and cost to the medical practitioners involved through repeated unnecessary consultations and tests. Despite this and its long history in the literature, the epidemiology, aetiology and treatment of hypochondriasis is fragmented and unclear. One reason may be the traditional dichotomy in disease symptomatology between somatic and organic symptoms, a distinction Lloyd (1986) sees as both spurious and misleading. Prior to DSM-111-R, there was diagnostic confusion between hypochondriasis, functional somatic symptoms and conversion phenomena (Kellner 1985).

Furthermore, attempts to explain and treat hypochondriasis have been influenced by a number of different ideologies, such as psychoanalysis and psychophysiology (Salkovskis 1989). Currently, epidemiological studies appear to be lacking and treatment studies tend to be based largely on single case designs and without a clear psychological formulation of aetiology and maintenance (Warwick 1989).

Barsky, Wyshak and Klerman (1986) see hypochondriasis on a continuum with normal health anxiety and argue that it is strongly related to both anxiety and depression. Kellner et al (1983, cited by Kellner 1985) estimates that about 9% of the general population disbelieve their general practitioners and thus may be suffering some degree of hypochondriasis. The prognosis for those with hypochondriasis is poor (Warwick 1989a) and there appears to be little evidence for the efficacy of any particular treatment type such as psychotherapy or electroconvulsive therapy (Kellner 1985).

Models of hypochondriasis need to take into account a variety of predisposing, precipitating and maintaining factors. Kellner (1985) proposes the importance of a variety of such factors, including genetics, the family, reinforcement and gain and hostility. However, across most models, there is general agreement that cognitions are important in this disorder. Barsky and Wyshak (1990) argue that it can be seen as a disorder of perception and cognition, while Kellner (1985) stresses the role of misinterpretations of bodily symptoms in its maintenance. The cognitive behavioural formulation of hypochondriasis has developed these ideas further and Warwick and Salkovskis (1990) propose a three systems approach, encompassing cognitions, behaviour and physiology. Normal physiological responses, which may or may not be related to anxiety, are

cognitively appraised and interpreted as both personally relevant and indicative of the presence of a serious disease (Warwick 1989a). This cognitive style of preoccupation with ill health is influenced by a number of factors, such as previous experience of related illnesses, misinterpretation of medical information (either from medical practitioners or via the media), and selective attention with a confirmatory bias (Salkovskis and Warwick 1986). For instance, Barsky, Coeytaux, Sarnie and Cleary (1993) found that patients with hypochondriasis had faulty normative standards about good health, considering minor symptoms to indicate illness. The behavioural aspects of avoidance, reassurance seeking and checking are important in maintaining the beliefs. The sufferer may, for example avoid exercise and thus never learn that the symptom is innocuous or may be preoccupied with bodily checking, which leads to a temporary reduction in anxiety followed by an increase. In some instances, checking may actually worsen the problem. For instance repeated feeling of a lump may cause inflammation of the area.

There are marked similarities between this and the cognitive-behavioural formulations of other disorders such as panic, (eg Clark 1986). However, one way in which hypochondriasis functions differently is in the long term nature of the fears. In panic disorder, a common fear is of imminent death through heart failure, while hypochondriacal fears commonly centre on cancer or multiple sclerosis (Warwick and Salkovskis 1990). This allows the individual time to develop the reassurance seeking behaviours which are not seen in panic, as the fear is ever present and does not dissipate as rapidly as it does after a panic attack. Thus Warwick (1992) argues that reassurance functions in a similar way to checking, leading to a temporary respite in anxiety for the

sufferer, followed by a rapid increase. Hypochondriasis also differs from panic in the impact of information from sources such as the media. This can be seen clearly in the increase of AIDS hypochondriasis as a result of media attention and education programmes (Warwick 1989). Nonetheless, the similarities between hypochondriasis and other anxiety disorders are strong enough to suggest that treatment based on a cognitive behavioural formulation will be successful, given that this has been demonstrated in, for example, panic disorders (eg Clark 1989). However it is also clear that treatment must be tailored both to the general nature of hypochondriasis, taking account of the role of reassurance and impact of the media, but perhaps more importantly accounting for the idiosyncratic nature of the client's fears, assumptions and beliefs about good and ill health.

Visser and Bouman (1992) have criticised the research literature on the treatment of hypochondriasis. They argue that it is based on uncontrolled single cases, which have primarily focused on behavioural techniques. The recent shift to a cognitive behavioural formulation of hypochondriasis, mainly due to the work of Salkovskis and Warwick (eg 1990) has produced another crop of such papers but controlled studies are still lacking. However Morley (1994) argues that one use of single case studies is to monitor the development of new treatments. Therapy can be developed and techniques refined on a small scale before large scale research is either practical or appropriate. The case presented below demonstrates both the use of cognitive behavioural formulation and treatment of hypochondriasis and also the way in which small scale research may be used to generate further questions.

CASE HISTORY

E.M. is a 40 year old married woman, who has three children aged 13, 11 and 7. E.M.'s husband works away on the rigs for two weeks out of four and has an alcohol problem. Before the onset of her difficulties E.M. described herself as happy and confident. However, five years prior to referral, her marital relationship had deteriorated with an escalating number of arguments about their financial difficulties and her husband's alcohol intake. Two years before referral, she experienced an incident which she feels was the start of her illness. In a pub one night with friends, she experienced an episode of severe depersonalisation, feeling that she was detached from herself and unable to control her actions. During this time she walked home with and then had sex with a neighbour. She initially believed that her drink had been spiked with drugs, which is possible given the area in which she lives, but it is more likely that she was experiencing an anxiety attack. Following this incident, she suffered a wide range of debilitating physical symptoms, many of which resembled pregnancy and she had numerous pregnancy tests. Her symptoms of pregnancy were then replaced by others such as weight loss, night sweats and various aches and pains, which she interpreted as a sexually transmitted disease and had a large number of tests including two for HIV. She also ruminated about a variety of other serious illnesses, but could not be reassured. E.M. therefore met the DSM-111-R criteria for hypochondriasis (American Psychiatric Association 1987).

PROCEDURE

E.M. first attended a four session anxiety management group, which covered the nature

of stress and anxiety, hyperventilation, assertiveness and problem solving. Her progress was monitored using the Beck Anxiety Inventory (Beck 1978) and the Beck Depression Inventory (Beck 1978). Graph one shows that both anxiety and depression decreased during the course of the group (time 1 and time 2), but that her depression increased during the waiting time between the group and the following individual appointments (time 3). At the start of the individual sessions, she reported that although the group had been useful she still believed that she had a serious illness (unspecified) and rated the strength of her belief at 90%.

Unlike some clients with hypochondriasis, (Salkovskis 1989), by the time she came for treatment, E.M. was readily prepared to look at psychological reasons for her difficulties and her individual sessions were based on the cognitive behavioural formulation of hypochondriasis outlined above. Her difficulties were conceptualised using the following diagram (figure 1) which is based on Salkovskis (1989). E.M. experienced anxiety initially as a result of both her general life circumstances and the incident with her neighbour. The physical symptoms of anxiety that resulted from these were then misinterpreted as symptoms of serious illness, further fuelling her anxiety and producing more symptoms to be misinterpreted. This misinterpretation was maintained by repeated self checking of her body, physical tests and seeking information from books and the media.

Treatment, following Warwick (1989b) was both cognitive and behavioural. Cognitive work, based on the treatment described by Salkovskis and Warwick (1989) focused on the detection of negative automatic thoughts and dysfunctional assumptions. For instance,

GRAPH 1

Graph to show Beck Depression Inventory and Beck Anxiety Inventory Scores.

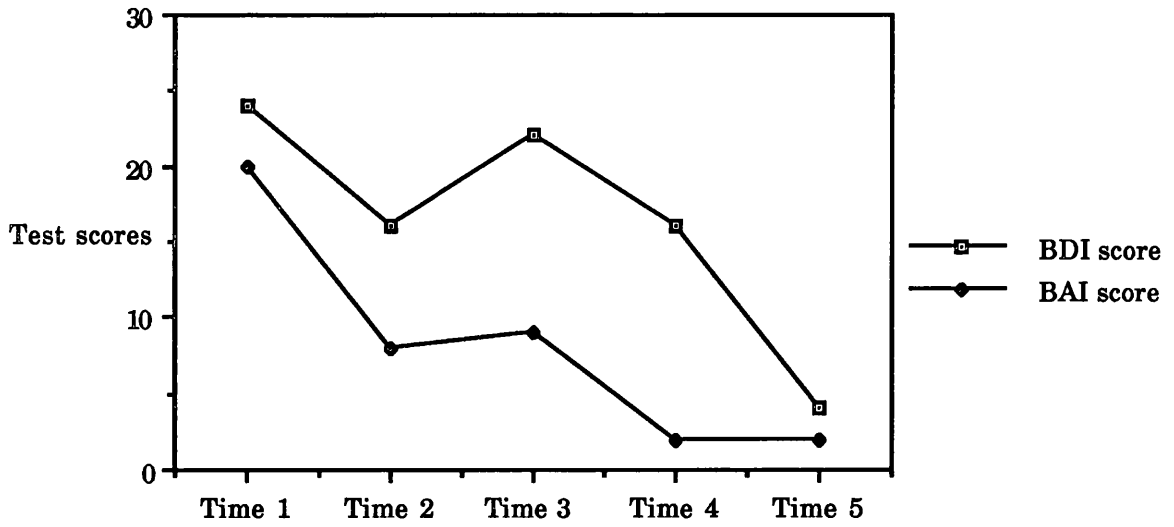
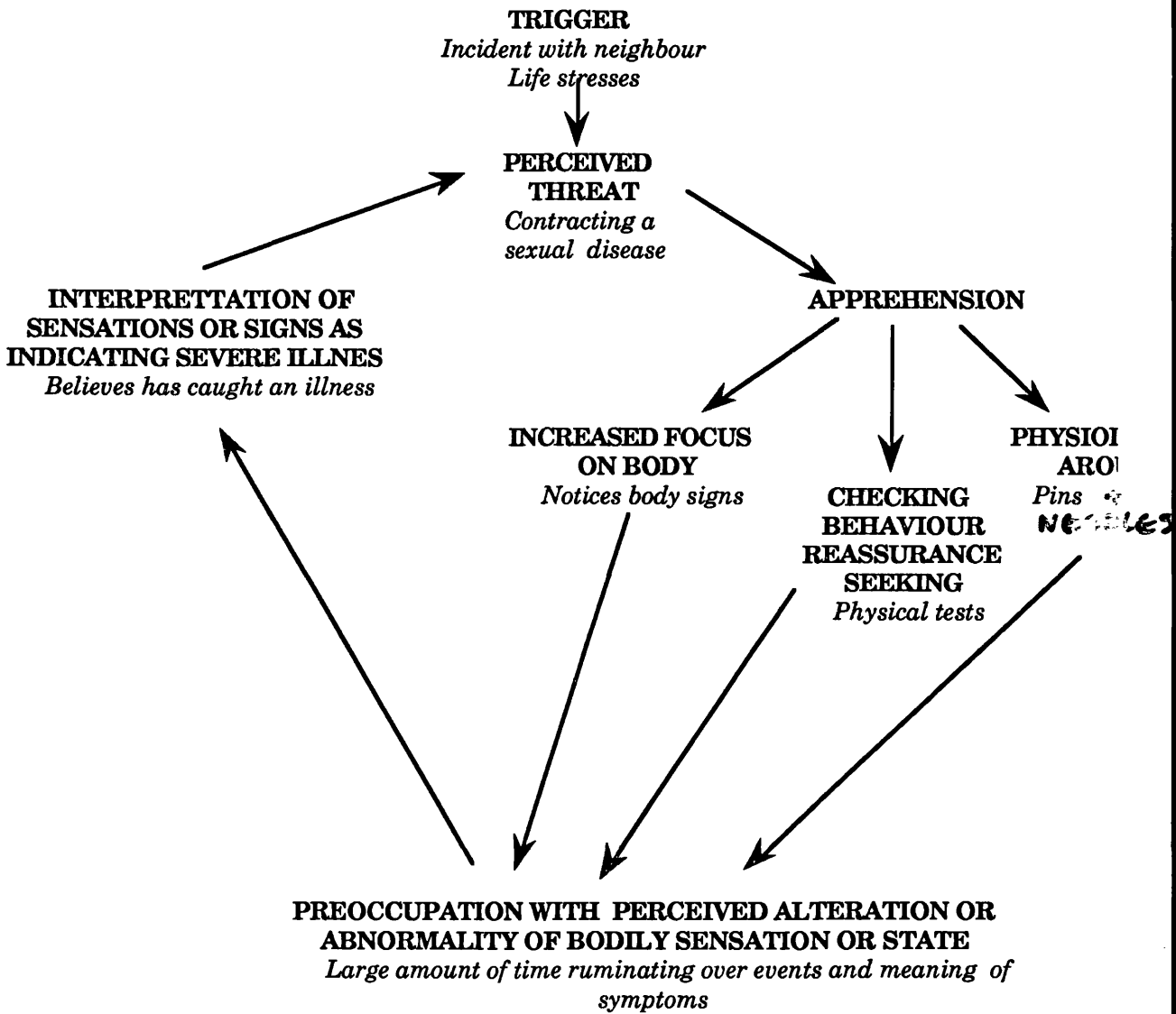


DIAGRAM ONE
COGNITIVE BEHAVIOURAL FORMULATION
OF HYPOCHONDRIASIS
 (Based on Salkovskis 1988)



she misinterpreted her rumbling stomach as a sign of cancer, and was encouraged to explore and evaluate alternative explanations, such as that she had missed a meal! One Particular worry was related to her belief that she had passed on her illness on to her husband as he was suffering many of the same symptoms as her. Therefore, a large proportion of the cognitive work focused on finding alternative explanations of his illness (eg stress, alcoholism) to reduce the belief that she was responsible for it. The behavioural aspects of treatment concentrated on the reduction of reassurance seeking and decrease in bodily amplification and body awareness. Barsky and Wyshak (1990) found that hypochondriasis sufferers experience increased amplification (that is, responsivity to normal sensations such as heat and hunger), so E.M. was encourage to become aware of this tendency and then to distract herself.

After 6 individual sessions, E.M. reported that the strength of her belief that she had a serious illness had dropped to 5% and her BAI and BDI scores had also dropped, to 2 and 16 respectively (see graph 1, time 4). This enabled her to look at her marital situation, which she then saw as the real cause of her problems. She attempted to negotiate a way of continuing her marriage with her husband, and when he refused to either cut down his drinking or attend Relate, she decided she had no option but to leave. E.M. attended for a further 8 sessions to discuss this decision and the practicalities that it involved. She also worked on increasing her feelings of low self esteem and concerns about her ability to cope alone by systematically evaluating and challenging her thoughts and feelings about herself. The final sessions were devoted to relapse prevention. E.M.'s BAI score remained constant at 2 while her BDI score at discharge (time 5) had continued to drop to 4 (see graph 1). E.M.'s belief that she had a serious illness remained

stable at 5%.

During this time, it emerged that her 11 year old son was responding to the tensions in the home by somatising in the way E.M. had done. He came in from school each day with a minor and changeable symptom, such as tooth ache or a sore knee which appeared to be a way of getting reassurance and comfort. E.M. therefore made sure she spent time explaining the situation to all her children and spending more time with them in enjoyable activities. She also distracted her son from his symptoms and ensured that she did not provide him with reinforcement. Within a few weeks, her son had stopped using illness to indicate that he needed attention.

DISCUSSION

This case history suggests the efficacy of a cognitive behavioural formulation and treatment of hypochondriasis in a single uncontrolled case. It raises a number of research questions both related to understanding the aetiology of the disorder and it's treatment.

A question which has repeatedly occurred in the literature is whether hypochondriasis is a primary or secondary disorder. A number of researchers (eg Barsky, Whyshak and Klerman 1896) have questioned in particular how it is related to anxiety and depression. In E.M.'s case there were significant levels of both. However, her anxiety level was reduced by the anxiety management group without alteration in her hypochondriacal concerns. During the individual sessions, her hypochondriasis reduced while her depression remained and only remitted when her marital difficulties and low self esteem

were tackled directly. This suggests that hypochondriasis can operate independently of both anxiety and depression. Kellner, Hernandez and Pathak (1992) believe that hypochondriasis can be either primary or secondary to depression and suggest that treatment packages should be designed with this in mind. They also found differences between those with a psychiatric diagnosis and those from general practice. If this is true, then large scale research should be able to identify different subgroups of those experiencing hypochondriasis. Furthermore, it should then be possible to demonstrate that the treatment of choice for primary hypochondriasis is different from that for secondary hypochondriasis.

The case history further raises questions about the importance of the family in the aetiology of hypochondriasis. E.M.'s son was clearly somatising rather than expressing his distress directly which Garralda (1992) believes is a feature of families with somatising children. Further, E.M.'s husband reportedly shared some of her concerns that they had the same illness due to the similarity of their symptoms. Warwick (1989a) argues that prior experience to illness may influence an individual's perception of and attitude to symptoms. This case history suggests that shared family beliefs about the meaning of symptoms and their use as communication may also be important. Research is therefore needed to further explore the role of the family in the development of hypochondriacal concerns, both in the in the general population and also in those with a psychiatric diagnosis of hypochondriasis.

Furthermore, the role of reassurance in the maintenance of hypochondriasis needs to be tested explicitly. Kellner (1985) argues that treatment should be based on provision of

reassurance, and this is supported by Starcevik (1991, cited by Warwick 1992) who sees the request for reassurance as an expression of the need for acceptance. However, this is directly in opposition to Warwick's (1992) cognitive behavioural formulation of reassurance which sees inappropriate reassurance as an important factor in its maintenance. There are marked similarities between this conceptualisation of reassurance in hypochondriasis and in obsessive-compulsive disorder (eg Salkovskis and Kirk 1989) which lends credence to her argument. Warwick further outlines a number of reasons why reassurance which 'works' for the worried well is not effective for the individual with hypochondriasis. These centre around the cognitive processes operating in hypochondriasis, such as thinking errors (selective abstraction and catastrophising), faulty beliefs about illness and dysfunctional attitudes about health (eg 'I am prone to serious illness'). She further argues that reassurance which does not take these processes into account will exacerbate the problem. Therefore patients should be prevented from seeking reassurance and information which they understand perfectly while errors should be corrected and pertinent new information provided in such a way that it cannot be misinterpreted. Given that there are opposing beliefs about reassurance which result in directly opposite treatment strategies, it seems crucial to test empirically the way in which reassurance functions in both the maintenance and treatment of hypochondriasis.

This case history also points to the need for large scale controlled evaluation of cognitive behaviour therapy for hypochondriasis. The case history outlined above suggests that treatment is better than no treatment, since E.M.'s problems had continued unabated for two years prior to treatment. Furthermore, it suggests, given that E.M. received the two forms of treatment, that cognitive behaviour therapy is more effective than a generalised

anxiety management package, in both the reduction of anxiety and depression and more particularly in the reduction of the fears specific to hypochondriasis.

Large scale research is also needed to delineate which aspect of the cognitive behavioural package is responsible for improvement. In the case study, improvements could have been due to the general supportive nature of the sessions, cognitive retraining, cessation of reassurance, reduction of focus on body sensation or a combination of any of these. Visser and Bouman (1992) find some support, for instance, for the efficacy of in vivo exposure over cognitive techniques, but this is based on 6 case studies, employing a crossover design rather than a controlled study.

Case histories can therefore be useful in promoting a wide range of research hypotheses. The case history described above suggests the efficacy of cognitive behavioural treatments of hypochondriasis but has generated a wide range of questions about the nature and treatment of the disorder.

REFERENCES

American Psychiatric Association (1987). *Diagnostic and statistical manual of mental disorders*, Third edition, revised.

Barsky A., Coeytaux B., Sarnie M. and Cleary P. (1993) Hypochondriacal patients beliefs about good health.

American Journal of Psychiatry, 150, 1085-1089.

Barsky A. and Wyshak G. (1990) Hypochondriasis and somatosensory amplification.
British Journal of Psychiatry, 151, 404-409.

Barsky A., Wyshak G. and Klerman G. (1986) Hypochondriasis: an evaluation of
DSM-III-R criteria in medical outpatients.
Archives of General Psychiatry, 43, 493-500.

Beck A. (1978) *Beck Depression Inventory*.
The Psychological Corporation.

Beck A. (1978) *Beck Anxiety Inventory*.
The Psychological Corporation.

Clark D. (1986) A cognitive approach to panic.
Behaviour Research and Therapy, 24 no 4, 461-70.

Clark D. (1989) Anxiety states: panic and generalised anxiety.
In K. Hawton, P. Salkovskis, J. Kirk and D. Clark (Eds) *Cognitive behaviour therapy
for psychiatric problems*. Oxford Medical publications.

Garralda M. (1992) A selective review of child psychiatric symptoms with a psychiatric
presentation.

British Journal of Psychiatry, 161, 759-773.

Kellner R. (1985) Functional somatic symptoms and hypochondriasis: a survey of empirical studies.

Archives of General Psychiatry, 42, 821-833.

Lloyd G. (1986) Psychiatric syndromes with a somatic presentation.

Journal of Psychosomatic Research, 30 no 2, 113-120.

Morely S. Single-case methodology in psychological therapy.

In S.Lindsay and G. Powell (Eds). *The handbook of Clinical Adult Psychology*. Second edition, Routledge.

Salkovskis P. (1989) Somatic problems.

In K. Hawton, P. Salkovskis, J. Kirk and D. Clark (Eds) *Cognitive behaviour therapy for psychiatric problems*. Oxford Medical Publications.

Salkovskis P. and Kirk J. (1989) Obsessional problems.

In K. Hawton, P. Salkovskis, J. Kirk and D. Clark (Eds) *Cognitive behaviour therapy for psychiatric problems*. Oxford Medical Publications.

Salkovskis P. and Warwick H. (1986) Morbid preoccupations, health anxiety and reassurance: a cognitive behavioural approach to hypochondriasis.

Behaviour, Research and Therapy, 24 no 5, 597-602.

Visser S. and Bouman T. (1992) Cognitive-behavioural approaches in the treatment of hypochondriasis: six single case cross-over studies.

Behaviour, Research and Therapy, 30 no 3, 301-306.

Warwick H. (1989a) A cognitive-behavioural approach to hypochondriasis and health anxiety.

Journal of Psychosomatic Research, 33 no 6, 705-711.

Warwick H. AIDS hypochondriasis.

British Journal of Psychiatry, 1989b, 155, 125-126.

Warwick H. (1992) Provision of appropriate and effective reassurance.

International Review of Psychiatry, 4 no 1, 76-80.

Warwick H. and Salkovskis P. (1990) Hypochondriasis.

Behaviour, Research and Therapy, 20 no 2, 105-117.

SINGLE CLINICAL CASE RESEARCH STUDY

Down's syndrome and Alzheimer's disease: early presentation in a woman with mild learning difficulties.

This research study has been written according to the guidelines of the Journal of Intellectual Disability Research. A copy of the author's notes and other relevant material may be found in Appendix Six.

**DOWN'S SYNDROME AND ALZHEIMER'S DISEASE: EARLY PRESENTATION
IN A WOMAN WITH MILD LEARNING DIFFICULTIES.**

ABSTRACT

The relationship between Down's syndrome and dementia of Alzheimer's type is well established. However, there are some difficulties in the early detection of symptoms, particularly in individuals with mild learning disabilities. A case study is presented which illustrates some of these difficulties.

INTRODUCTION

One reason for interest in the relationship between Down's syndrome (DS) and Alzheimer's Disease (AD) stems from the hope that understanding this phenomenon will eventually lead to ways of screening for or curing AD in the normal population. The gene responsible for the development of AD has been located in chromosome 21, which is also responsible for DS via trisomy 21 (Lai and Williams 1989). However, although there is strong evidence that a link exists between DS and AD (eg Karlinsky 1986) with all individuals developing the neuropathology of the disease by the fourth decade (Haxby 1989), not all individuals go on to develop the clinical features of the disease (Prasher 1993). Even some individuals with complete trisomy 21 do not develop the clinical features of AD, while cases are found in individuals with mosaic forms or with 21/22 translocation. Prasher (1993) therefore argues that the role of cytogenetics in the

development of dementia in DS is complex, and is not a simple overexpression of the APP gene (as in trisomy 21). It is therefore crucial to document the course of AD in DS in order to tie the neuropathology more closely to the clinical features of dementia of Alzheimer's type (DAT) (Devenny, Hill, Paxtot, Siverman and Wisniewski 1992).

The age of onset and duration of DAT in DS has been investigated by a number of researchers. Lai and William (1989), in a prospective study, found that about 50% of subjects developed DAT with a mean age of onset of 54.6 years and a duration of 4.6 years. However, the incidence increased markedly with age, from 8% in the 35-49 age group, 55% in the 50-59 age group and 75% in those age 60 and above. Retrospective studies tend to find an earlier age of onset but longer duration. Dalton and Crapper-McLachlan (1986 cited by Dalton and Wisniewski 1990) found the mean age of onset to be 44.6 and a course lasting 6 years on average. This suggests that retrospective studies may be better at detecting the earliest signs of DAT, possibly because they rely on behavioural observations rather than cognitive assessment. Evenhuis (1990) followed 17 individuals with Down's syndrome prospectively, using both observations and standardized tests and found that behavioural changes were seen before cognitive changes were detected.

The course of DAT in DS lies in three stages. In the initial phase, memory impairment is the most common feature (eg Oliver and Holland 1986, Lai and Williams 1989). There is wide individual expression of this symptom, but may include forgetting names of objects and people, inability to follow routines and loss of sense of direction and location (Dalton and Wisniewski 1990). In high functioning individuals, this may be accompanied

by temporal disorientation and reduced verbal output, while in lower functioning individuals it is accompanied by apathy, inattention and decreased social interest (Lai and Williams 1989). The second phase is characterised by a loss of self help skills, slowed and shuffling gait and the occurrence of seizures (Lai and Williams 1989, Dalton and Wisniewski 1990). Oliver and Holland (1986) reported that memory becomes severely impaired in this phase. In the final stage, severe disorientation and behaviour problems are common (Oliver and Holland 1986). Lai and Williams (1989) found that individuals became bedridden and incontinent and that pathological reflexes (such as the palmar grasp) emerged. Death usually occurs as a result of pneumonia. The course outlined by these researchers is very similar to that seen in the normal population (American Psychiatric Association, 1994, Lezac 1983).

Research on DS and AD has been hampered by a number of factors. One concerns the link between clinical features and the diagnosis of AD in the absence of post mortem evidence. This is difficult even in the normal population. According to DSM-IV (American Psychiatric Association 1994), a diagnosis of Alzheimer's disease can only be made for certain when all other types of dementia have been ruled out. In DS there are a number of other problems which could be responsible for the symptoms described above. These include hypothyroidism (Prasher and Krishnan 1993), visual and hearing difficulties (Evenhuis 1990) and depression. Lack of knowledge of the early stages of dementia means that even when no evidence of DAT is found, it may be due to insensitive instruments or selection of a subject group too young for the clinical features to have emerged (Devenny, Hill, Paxtot, Siverman and Wisniewski 1992).

The main difficulty in research is that the cognitive changes of DAT may be masked by the learning difficulties of individuals with DS, particularly in the early stages of the disease (Brugge, Nichols, Salmon, Hill, Delis, Aaron and Trauer 1994). The presentation and course of the disease may also vary according to the degree of learning disability. It appears particularly difficult to detect cognitive changes early in AD when language skills are poor (Lai and Williams 1989). These difficulties are compounded by the lack of standardized clinical instruments available for the assessment of DAT in the DS population (Dalton and Wisniewski 1990). Tests such as the Mini Mental State Examination have been designed for the assessment of dementia in the normal population and rely heavily on useful speech. Therefore, individuals with more than moderate learning difficulties may not be able to complete the test at all, and the results of those that can may not be reliable or valid. Dalton and Wisniewski (1990) argue that the MMSE even fails to discriminate dementia from DS.

The early detection of DAT is more problematic than detection of the later stages. Brugge (et al 1994) argue that studies which compare dementing with non-dementing individuals with Down's syndrome potentially miss many of the early signs. They therefore compared individuals with Down's syndrome with individuals matched for age and IQ and found that the 'savings score' (percentage memory recall over time) was a sensitive indicator of early dementia. Non-memory based verbal tests were not sensitive. Wisniewski et al (1985) argue that criteria other than intellectual functioning should be used for the assessment of DAT, such as carer reports. This is also true in the normal population. Beardsall and Huppert (1991) compared three types of assessment, clinical (eg the CAMCOG), psychometric and behavioural (eg the Rivermead Behavioural

Memory Test) and found that everyday tests were the most useful (eg recall of a route). In particular, these tests made least classification errors in the borderline group. Relatives reports have also been found to be sensitive to the detection of DAT, despite concerns of retrospective attribution of all difficulties to dementia, or of the influence of stress on symptom reporting. 90% reported forgetfulness as the first occurring symptom (La Rue, Watson and Plotkin 1993).

The following case history is that of an able woman with Down's syndrome in the early stages of DAT. Assessment was carried out on two occasions one year apart, using psychometric and behavioural tests as well as observation. The case illustrates some of the difficulties in diagnosing the presence of DAT in DS. It was predicted that behavioural assessment and clinical report would provide clearer evidence of DAT than psychometric assessment.

CASE HISTORY

A.R. is a 54 year old woman with DS. She lives in a hostel for people with learning difficulties and attends an Adult Training Centre four days a week. She has mild learning difficulties and has good speech and self care skills. A.R. can read and write, and enjoys cooking, knitting, visiting her family and watching cowboy films.

For the two years prior to the referral (ie from about the time A.R. was 50), staff at the hostel and ATC had become increasingly concerned that A.R. was becoming forgetful.

They therefore requested a full assessment to look specifically at the possibility that she might be developing DAT. The assessment was carried out twice, with an interval of 15 months between them, and comprised observations by the staff of the hostel and ATC and the researcher, psychometric assessment using the WAIS-R and behavioural tests using the Rivermead Behavioural Memory Test and the Basic Social Knowledge test. The purpose of the assessment was to provide an indication of her memory problems relative to her other skills and to delineate changes over time, if any. Information from the assessment would then be used to look at possible causes of her memory loss.

1. SOCIAL FUNCTIONING AND DAILY LIVING SKILLS

At time one, A.R. was reported by care staff to have deteriorated in skills requiring memory. Examples included mislaying objects, becoming lost in the local vicinity and muddling the names of family members. Her keyworker at the ATC reported between 2 and 7 instances of forgetting each day, including her daily timetable and the activities she had engaged in that morning. She was observed not to know her way around the centre and was also seen to forget the menu she was preparing for lunch over a period of one and a quarter hours, despite cooking being a favourite activity.

15 months later, A.R.'s memory problems were reported to have continued. Care staff felt she was less able to remember her way around the hostel, was disturbed when changes in routine occurred and repeated jobs in the hostel which she had completed only a short while before. The keyworker estimated that such instances of forgetting occurred between 7 and 10 times a day. Her self help skills were still good, although she was

unable to tell whether she should wear summer or winter clothes by observing the weather. As a result of her difficulties in the ATC she had been transferred to a group with a more stable routine and no changes of room. This had lessened the frequency of confusion and wandering in the ATC.

At time one, there was no evidence of any anxiety or depression which could account for the memory difficulties she was experiencing. At time two, she was both reported to be more easily disturbed and somewhat more irritable, particularly when experiencing difficulty in completing a task. However, there was still no evidence of depression. It was reported that she suffered from hypothyroidism, but that it was a long standing condition which was well controlled by medication.

A.R.'s hearing appeared to be good at time one and time two. She did not have to ask for questions to be repeated and there were no occasions on which she did not answer. Furthermore, she was aware of and could correctly identify the sounds coming from outside the room. However, at time two, she appeared to have some visual difficulties. For instance, she held test materials very close to her eyes and grumbled about them. This was not observed at time 1.

2. INTELLECTUAL FUNCTIONING

The WAIS-R (Wechsler 1981) was used to assess A.R.'s overall intellectual functioning.

A.R. scored in the mild range of learning difficulties at both time one and time two,

which is consistent with the staff's opinion that she is very able. The profile is quite even and it is difficult to conclude from this the existence of any particular cognitive impairments.

Table 1. WAIS-R scores

	TIME 1	TIME 2
Full scale IQ	62	56
Verbal IQ	66	63
Performance	63	59
Age scaled sub tests		
Verbal		
Information	3	2
Digit span	2	2
Vocabulary	4	6
Arithmetic	3	2
Comprehension	4	4
Similarities	6	5
Performance		
Picture completion	4	4
Picture arrangement	2	3
Block design	4	3
Object assembly	1	1
Digit symbol	2	1

3. MEMORY FUNCTIONING

The Basic Social Knowledge Test was designed to assess those academic cognitive skills necessary for personal independence or existence in the community. It attempts to measure skills which are more relevant to individual needs than standard intelligence tests, and has been normed on people with learning difficulties. A copy may be found

in appendix 6.

At time one, A.R. scored 9/19 in the Basic Social Knowledge test, putting her in the fair category. At time two, her score had dropped to 5 (poor). The change was mainly due to decreased orientation (knowledge of the day of the week and ability to recite the days of the week and months of the year).

The second behavioural test, the Rivermead Behavioural Memory Test (Wilson, Cockburn and Baddeley 1985) has not been standardised on people with learning difficulties. However, the test has some validity for A.R. given that her overall intellectual level is in the mildly impaired range. At time one, A.R.'s profile score was 5, putting her in the severely impaired range. However, it had dropped 0 to at time two. Her ability to recognise previously seen objects had deteriorated (although she had been able to name all of them without difficulty) and she was less oriented to time and place. At time two she had no recollection of the instruction to ask for another appointment when the buzzer rang, or to look for her belonging at the end of the assessment, whereas at time one she had remembered that she had a task to complete.

4. DIAGNOSIS OF DAT

Using the information from assessments one and two, it was apparent that A.R. does have a memory impairment. This does not appear to be due to hypothyroidism, depression or hearing loss. There is some suggestion that she has increased visual difficulties, which may contribute to her day to day difficulties such as finding her way about the building. However, her ability to name line drawings of objects was perfect

while her ability to recognise them a few minutes later was seriously impaired, suggesting her difficulties are not solely due to a visual impairment.

It is plausible to suggest that A.R. is suffering from DAT. She is of the age in which this is likely in DS and she is suffering from a memory impairment which cannot easily be explained by other factors and which is the most common early feature of DAT. Furthermore, this impairment is confirmed by clinical observations, psychometric and behavioural testing. However, it is not possible to diagnose Alzheimer's disease according to DSM-IV criteria (APA 1994) as other dementias (such as multi-infarct) cannot be ruled out.

DISCUSSION

The case described above illustrates the assessment of early DAT in a woman with DS and mild learning difficulties. The primary symptom is of a memory impairment, demonstrated both by observation and cognitive assessment and it appeared at the age in which half the DS population develop DAT (Lai and Williams 1989). There is also some suggestion that the disease is progressing; her memory difficulties are increasing and she is less orientated to time and place, which Evenhuis (1990) has found to occur during the second or third year of DAT. She is also showing some personality changes such as increasing irritability which are reported to occur during the course of AD (Lezac 1983).

This case illustrates the difficulties of making a firm diagnosis in DS when there are no standardised assessment for DAT in this population. Although Dalton and Wisniewski

(1990) have argued that standard instruments may be used on those with only mild learning difficulties, there still may be difficulties with floor effects. This can be seen here in the Rivermead Behavioural Memory Test as A.R. scored particularly poorly at time two. This assessment will therefore not yield useful information if her abilities decline further. Tests designed for the normal population (eg the Rivermead Behavioural Memory test) can therefore at best be applied only tentatively to the DS population.

In common with the findings of a number of researchers (eg Evenhuis 1990, Beardsall and Huppert 1991), behavioural changes, shown by observation and behavioural tests were more useful than cognitive changes shown by psychometric assessment in the detection of DAT. Over the 15 months between assessments, there was relatively little change in A.R.'s WAIS-R scores and relatively more in her behaviour. This may be because A.R.'s learning difficulty masked the decline in her cognitive performance. Alternatively, due to the early presentation, her cognitive skills may not have yet declined to the extent that psychometric tests can detect them. Christenson and MacKinnon (1992), meta-analysing number of studies, found evidence of decline in both verbal and performance WAIS scores, suggesting that psychometric tests will detect cognitive impairments at some stage of the disease. In A.R.'s case, general psychometric testing would not yet have indicated that she was having difficulties. This supports Evenhuis' (1990) finding that behavioural tests and observation are more useful in the early detection of DAT in DS. It also may explain why retrospective studies which rely on observation find an earlier age of onset compared with prospective studies using cognitive testing.

In summary, this case history has illustrated the difficulties of making a firm diagnosis of DAT in DS, due to lack of standardised test materials, the masking of memory difficulties by a general learning disability and differences between behavioural observation and cognitive testing. It is easy to see how these difficulties would be multiplied given the range of abilities across the spectrum of DS. It does not seem realistic to document one single course of DAT in DS, given that the presentation will vary according to the degree of learning difficulty. Much needed standardised assessments will have to differentiate between memory impairments and general learning difficulties as well as being sensitive to variations in the course of DAT from individual to individual. It seems likely that assessment packages will require a combination of cognitive tests, behavioural tests and skilful behavioural observation.

REFERENCES

American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders*. Fourth Edition.

Beardsall L. and Huppert F. (1991) A comparison of clinical, psychometric and behavioural tests: findings from a community study of the early detection of dementia.

International Journal of Geriatric Psychiatry 6, 295-306.

Brugge K., Nichols S., Salmon D., Hill L., Delis D., Aaron L. and Trauer D. (1994)

Cognitive impairment in adults with Down's syndrome: similarities to early cognitive changes in Alzheimer's disease.

Neurology **44**, 232-238.

Christensen H. and MacKinnon A. (1992) Weschsler Intelligence Scale Profiles in Alzheimer dementia and healthy ageing.

International Journal of Geriatric Psychiatry **7**, 241-246.

Dalton A. and Wisniewski H. (1990) Down's syndrome and the dementia of Alzheimer's disease.

International Review of Psychiatry **2**, 43-53.

Devenny D., Hill A., Paxtot O., Siverman W. and Wisniewski K. (1992) Ageing in higher functioning adults with Down's syndrome: an interim report in a longitudinal study.

Journal of Intellectual Disability Research **36**, 241-250.

Evenhuis H. (1990) The natural history of dementia in Down's syndrome.

Archives of Neurology **47**, 263-267.

Haxby J. (1989) Neuropsychological Assessment of adults with Down's syndrome: pattern of selective impairment in non-demented old adults.

Journal of Mental Deficiency Research **33**, 193-210.

Karlinsky H. (1986) Alzheimer's disease in Down's syndrome: a review.

J.A.G.S. **34**, 728-734.

Lai F. and Williams R. (1989) A prospective study of Alzheimer's disease in Down's syndrome.

Archives of Neurology **46**, 849-853.

La Rue A., Watson J. and Plotkin D. (1993) First symptoms of dementia: a study of relatives reports.

International Journal of Geriatric Psychiatry **8**, 239-245.

Lezac M. (1983) *Neuropsychological Assessment*.

Oxford University Press Second Edition

Oliver C. and Holland A. (1986) Down's syndrome and Alzheimer's disease: a review.

Psychological Medicine **16**, 307-322.

Prasher V. (1993) Down's Syndrome, longevity and Alzheimer's disease.

British Journal of Psychiatry **162**, 711.

Prasher V. and Krishan V. (1993) Hypothyroidism presenting as dementia in a person with Down's syndrome: a case report.

Mental Handicap **21**, 147-149.

Wechsler D. (1981) *Wechsler Adult Intelligence Scale-Revised*.

The Psychological Corporation.

Wilson B., Cockburn J. and Baddeley A. (1985) *The Rivermead Behavioural Memory Test*.

Thames Valley Test Company.

Wisniewski et al. (1985) Alzheimer's disease in Down's syndrome: clinicopathological studies.

Neurology, 35, 957-961

SINGLE CASE RESEARCH STUDY.

Accounting for individual stage of change in the treatment of substance misuse.

This research study has been written according to the guidelines of Addiction Research.

A copy of the author's notes may be found in appendix Seven.

ACCOUNTING FOR INDIVIDUAL STAGE OF CHANGE IN THE TREATMENT OF SUBSTANCE MISUSE.

ABSTRACT

Motivational interviewing, developed by Miller (1983) has been combined with Prochaska, Diclemente and Norcross' (1992) transtheoretical model of change for the treatment of substance use disorders. Although a number of treatment studies suggest the efficacy of this combination, the stage of change of the individual at the start of treatment is often not considered. There may therefore be a mismatch between the individual's needs and the motivational techniques used, which may account for the reported variation in treatment response. Four case histories are presented to illustrate the different stages of change at initial interview.

INTRODUCTION

Treatments for substance-use disorders have traditionally not included the 'psychotherapies' (Najavits and Weiss 1994). However, over the last decade this situation has started to change, and a number of psychotherapeutic treatments have been developed or adapted in relation to substance use. These include, for instance, cognitive-behavioural treatments such as relapse prevention and contingency contracting and interpersonal therapies such as psychoanalysis and motivational interviewing (Najavits and Weiss 1994). Such therapies provide the individual with options other than pharmacological treatment or the 12 step programme and permit the treatment of comorbid psychiatric or

other problems.

This paper discusses the application of motivational interviewing (Miller 1983) and the transtheoretical model of change (Prochaska, Diclemente and Norcross 1992) to the treatment of substance use disorders. Specifically, it highlights the potential usefulness of identifying each individual's stage of change at the start of any intervention and argues that failure to do this may be responsible for the variation in treatment effects reported by research.

The techniques used in motivational interviewing were developed in the early 1980's (Miller 1983) and arose from concerns with the traditional treatment of alcohol abuse. Early treatments focused on client denial of the problem and attempted to promote the development of insight as a precursor to behaviour change. However, Miller (1983) argues that 'denial', rather than being the client's unwillingness to admit to a problem, may in fact represent the client's disagreement with the therapist's model. In this light, 'insight' is the client's adoption of the therapist's belief system. Traditional treatments confront denial with direct arguments, which pushes the client in the opposite direction until a crisis is reached and the client accepts that he or she is an 'alcoholic', with the only option being abstinence.

Motivational interviewing was devised as an alternative to this. Drinking is seen as a personal choice and the responsibility is therefore placed on the client to decide what action needs to be taken (Miller 1983). Individuals are motivated towards change by increasing the perceived discrepancy between their goals and current behaviour using three main processes. 'Affirmation' increases the client's self esteem and efficacy while

'awareness' increases the knowledge of their drinking and its consequences. The provision of 'alternatives' allows the client to see that there are options other than their current drinking pattern, which encourages a behavioural change towards drinking less rather than a 'cognitive defensive' change towards accepting the drinking. Self efficacy is seen as particularly important in mediating between these two. The client is also encouraged in the development of internal attributions (Miller 1983), which seems important given Haynes and Ayliffe's (1991) finding that substance users were higher externalisers than four control groups selected on the basis of age and occupation. The model was later extended to include 8 characteristics, namely advice, barriers, choice, desirability, external contingencies, feedback, goals and helping attitudes (Miller, Sovereign and Krege 1988), but the basic principles remain the same.

Motivational interviewing is commonly integrated with the transtheoretical model of change which was developed at approximately the same time. Prochaska, Diclemente and Norcross (1992) suggest that there are five stages involved in change. The first, or precontemplation stage is characterised by lack of awareness of the problem and there is therefore no intention to change. In the next stage, contemplation, there is an awareness of the problem but ambivalence about changing behaviour. This stage may last for years and is mainly evaluative. Decisions are taken in the third stage, preparation, when the individual plans for the behaviour change. This is followed by the action stage when behaviour, environment, or experiences are modified to overcome the problem. The fifth stage, maintenance, allows the consolidation of change and relapse prevention. A spiral rather than a linear progression through these stages is common and individuals may for instance cycle several times through the precontemplation and contemplation stages before

action is reached. This notion has been supported by Saunders, Wilkinson and Phillips (1995) who demonstrated statistically that opiate users on a treatment programme did not progress linearly through the stages of change.

It has been suggested that motivational interviewing can be used as a non-confrontational way to speed the client's progress through the cycle of change (Miller 1983, Hodgson 1991). A number of treatment packages use this combination of motivational interviewing and the transtheoretical model. However, as Najavits and Weiss (1994) point out, these are usually brief interventions, based on one or two sessions and followed by longer conventional treatments. An example of this combination is Botelho and Novak's (1993) 6 step model for primary care physicians to use in dealing with the spectrum of alcohol problems. The 6 steps involve firstly the identification of the individual's stage and then motivational techniques aimed to move them on to the action stage. This combination of ideas is also being applied to other substance use disorders (eg opiate use, Van Bilsen and Whitehead 1994) and appears to be successful. Holder, Longabaugh, Miller and Rubonis (1991, cited by Najavits and Weiss 1994) reviewed 9 studies and reported that 8 indicate a positive outcome for motivational interviewing.

Using the transtheoretical model, change is seen as a complex and dynamic process and each stage of change has its own treatment requirements (Botelho and Novak 1993). For instance, the task of intervention in the precontemplation stage may be to raise concerns about the effect of alcohol on health, while in the action phase interventions are targeted at identifying and removing barriers to behaviour change. Motivational interviewing may not be appropriate for each stage. Diclemente (1991) believes that motivational interviewing strategies are particularly important during the contemplation stage, and that

content and strategies will vary in the other stages. It therefore seems crucial to identify the stage of change of each individual and to tailor intervention to fit both the stage and the individual's needs. Prochaska, Diclemente and Norcross (1992) believe that many treatments fail because they are 'action orientated' and are therefore inappropriate for clients who are not at the action stage. A number of research papers which base their treatment on the transtheoretical model and motivational interviewing appear also to have fallen into the trap of not matching intervention with stage of change.

Saunders, Wilkinson and Phillips (1995) describe a motivational intervention in a study involving 122 opiate users. While the control group received an hour's education and a booklet about opiate use, the treatment group received an hour long motivational interview focusing on the advantages and disadvantages of continued drug use, plus a homework task. At the 6 month follow up, the motivational intervention group were faring better on a number of measures including commitment to abstinence and level of opiate related problems though not on the severity of opiate dependence. A measure of stage of change was used to show that one week after the intervention, the 'majority' (their term) of the treatment group were at the contemplation stage, while the 'majority' of the control group were at the precontemplation stage. The figures, however, show that 38% of the treatment group were in the contemplation stage, with the remaining 62% in the other stages. There is no mention of the stage of the individual at the time of the intervention. However, as the motivational work they described appeared appropriate for the contemplation stage, it suggests that treatment may not have been matched to the individual for over half of the group.

Two studies in which Miller himself was involved also appear not to make use of the individual's stage of change. Furthermore, the motivational interviewing was described in general terms and it is not clear whether it was tailored to individual needs. Miller, Sovereign and Krege (1988) compared three groups of subjects recruited through local papers with a brief intervention based on the 'drinkers check up'. This is a comprehensive assessment package, the results of which are fed back to the individual in a motivational interview. The first group received only the assessment and feedback, the second were given an additional list of helping agencies and the third constituted a waiting list control. There were no differences between groups at follow up, and it was suggested that the checkup was not sufficient an intervention for 'most' subjects. It was noted, however, that there was considerable variation within groups in terms of the changes made.

In a further study, Bien, Miller and Boroughs (1993) analysed a brief package for outpatient intervention. Control subjects were assessed using a modified version of the drinkers checkup, were briefly advised that they had an alcohol problem and were recommended to attend the treatment centre for further help. The treatment group received feedback from an identical assessment along the lines of motivational interviewing and received the same recommendation to attend the centre. The treatment group achieved better results on a variety of measures at three months but these were not maintained at six months. Again, there was no mention of the intervention procedures being tailored to the individuals stage of change.

Miller (1994) suggests that, at any time, most people with addictive behaviours tend to

be unmotivated precontemplators or contemplators. These two groups will require different intervention strategies as will the smaller groups of people in the preparation, action or maintenance stage (Diclemente 1991). It is plausible to suggest that the individual differences in outcome reported by Miller, Sovereign and Krege (1988) were related to the stage of change at entry in the study, and furthermore, that the group who did well were close to the action phase when they entered treatment. Although brief interventions do appear to have some successes, it is necessary to attempt to tease out which factors are responsible for this success. Analysing the impact of motivational interviewing at different stages of change may be a useful direction to take.

The following case studies are presented to illustrate the different stages of change at which individuals may be found at their initial interview at a substance misuse centre. The difficulties of classifying some individuals are highlighted. Further, the cases will show that the blind application of motivational techniques may not meet the need of some clients. Lastly, they will demonstrate the non-linear progression through the stages of change during intervention.

CASE HISTORIES

Case one - the contemplation phase.

R.W. is a 45 year old man who has a 30 year history of alcohol use. He reported that he originally turned to alcohol as a teenager when he developed a fear of dying, the alcohol being used to help him sleep. Just prior to referral, R.W. had been an inpatient

for emergency detoxification, and had been unable to work for the previous 6 months. On return home from the detox, he immediately returned to consuming his normal level of 30 units of alcohol a day.

At the time of his first appointment in the centre, R.W. expressed ambivalence about his alcohol use. He knew it was damaging his health, but felt that death was inevitable and that the alcohol helped make this bearable. R.W. therefore fitted into the contemplation stage of the transtheoretical model, having defined himself as having a problem but being unsure about what action, if any, he should take. Following an initial assessment, R.W. kept a drinking diary for the first time. This showed him the extent of his intake and he reported being deeply shocked that his alcohol consumption was so high. Two sessions were then spent analysing the pros and cons of cutting down compared with maintaining his level of drinking. At the end of this time, R.W. chose to cut down, with the ultimate aim of drinking three units a day. He then spent two weeks in the preparation phase, planning alternative activities for distraction and reinforcement, before successfully halving his alcohol intake. R.W. then entered another phase of contemplation and preparation while deciding whether to cut down again.

R.W.'s case illustrates both the utility of motivational interviewing with a contemplator and also the non-linear nature of progress through the stages. R.W. may cycle through the contemplation to action phases on several occasions, reducing his alcohol intake each time before he finally reaches a level he finds acceptable and enters the maintenance phase.

Case two - the preparation phase.

T.G. is a 30 year old woman who referred herself to the service wanting to cut down her marijuana use. At the initial meeting, she reported that she smoked daily and felt that the marijuana controlled her, rather than the other way around. Her stated aim was to be a recreational user, which for her meant smoking only at weekends. However, T.G. reported that her use was related to traumatic experiences of abuse as a child and violent relationships as an adult and believed that she should go some way towards resolving her past before attempting to cut down.

Motivational interviewing to encourage the decision to change would not be appropriate for T.G., who had made this decision before asking for referral, and who had also already planned the preparation which would be necessary. She therefore fitted into the preparation stage of the transtheoretical model.

Case three - the maintenance phase.

A.W. is a 39 year old woman with a 15 year history of alcohol related problems and tranquilliser abuse. She had attempted to achieve abstinence on a number of occasions in the past but these had always failed. A.W. was prompted to try again by the death of a friend through an accidental drug overdose, which she reported had scared her into stopping drinking. A.W. therefore asked her general practitioner to refer her to the substance misuse centre for help maintaining her abstinence. In particular, she wished to receive help in dealing with the life events which she felt had played a large part in her

alcohol use.

A.W. entered the service having been abstinent for over a month, and was therefore in the maintenance phase at the first appointment. Motivational interviewing based in her alcohol use and aimed at encouraging change would clearly have been inappropriate.

Case four - unclassifiable.

A.R. is a 29 year old woman with a history of polydrug use. She had made various attempts at reducing her drug use in the past, including methadone programmes but had always relapsed. At the time of referral, A.R. was in the middle of another detox programme and could therefore be seen as in the action phase. Mid way through the programme, she raised some issues over past abuse for which she felt she needed help. She felt unsure about whether she could deal with these issues while coming off methadone which suggests she was still in the preparation phase. However, a number of incidents during the course of her contact with the unit suggested that in fact, she had little or no intention of reducing her drug use at that time, putting her in the precontemplation phase. Raising the abuse appeared to be a way of keeping her in the programme and thus supplied with methadone. It was therefore impossible to classify A.R. in any single stage.

DISCUSSION

The case histories outlined above illustrate the need for careful consideration of each individual's stage of change at the time of referral. Motivational interviewing was only appropriate in the case of R.W. and had it been applied blindly to the others, could have led to drop out as their needs were not being met. It raises a concern about the use of motivational interviewing by inexperienced counsellors who may not be skilful enough to adapt the strategies to individual clients.

The case histories also indicate the complexity of these stages. R.W. illustrates the non-linear progression from the decision to change to the desired outcome. There may be difficulty in classifying individuals according to this model, as A.R.'s case suggests. Perhaps individuals can fall into several groups simultaneously? While Prochaska, Diclemente and Norcross (1992) seem to imply that the stages are discrete, this may in fact not be the case, and further research is needed to look at this.

The cases also indicate a weakness with the stage of change model. There appears to be no legitimate way for an individual to decide that his/her drug or alcohol use is acceptable or problem free, which is surely a possible outcome of contemplation. R.W., for instance, may well have decided that his alcohol use, though problematic, was in fact better than facing his fear of death unaided. Motivational interviewing stresses individual choice and responsibility, but at one level can contain the disease model's assumption that cutting down or abstaining is the only viable choice. Miller (1994) argues that there is no ethical problem in using motivational interviewing, as it is not possible to persuade

a client to give up alcohol against his or her will. Nonetheless, even his writings are underpinned by the assumption that continuing to drink is foolhardy. In 1983, he wrote that motivational interviewing was an alternative approach to 'the perplexing problem of how to help clients recognise *and do something* about their potential problem with alcohol' (page 153, italics added). Other workers, too, have not fully taken on board the notion of individual choice. For instance, Botelho and Novak (1993, page 59) write that 'patients often minimise their unhealthy drinking habits because they perceive the benefits outweigh the consequences'. The next section of the paper contains therapeutic techniques for altering this perception without any suggestion that the client might be right.

Some clients may feel that, for them, the consequences of stopping their substance use would be more foolhardy than continuing. This may, for instance, have been true for A.R., who would have had to deal with her recently raised abuse issues while experiencing withdrawal. At the very least, once it became apparent that A.R. had no intention of cutting down, there was no category for her apart from precontemplation. Placing her in this group does not reflect her awareness of the 'problem' or her choice not to alter her drug use at the present time.

Detailed research following individuals through their treatment also appears to be lacking. One obvious need, indicated by these case histories, is an analysis of the stages individuals have reached at the time of referral. If only a small number are in the contemplation or action stage, it would explain the relatively poor result of some studies using motivational interviewing. This could be followed up by analysing the stages individuals cycle through before either dropping out, succeeding in their aims or relapsing. This information in particular would aid the design of future programmes.

These cases also suggest the utility of the stage of change model for other psychological problems. It may be applied, for instance, to R.W.'s difficulties with the fear of death. At the time of referral, he was aware that these fears constituted a problem, which he wished to tackle with an alternative to his original solution of alcohol use. He was therefore in the contemplation stage for this problem, as well as his alcohol use. Motivational interviewing would be useful in helping an individual analyse other problem behaviours as well as aiding the decision to change. Furthermore, individual difficulties interact, as is clearly shown by several of the case histories. Substance misuse rarely, if ever, exists in a vacuum but is related to other problem areas. Therefore, accounting for the interaction of the substance use with other areas of difficulty in an individual's life using the stage of change model may help overcome some of the complexities of treating substance use disorders.

Lastly, these cases may help illuminate some of the complexities of controlled treatment research. Random allocation of subjects into groups may mean that some receive treatment which is not appropriate for their needs at that time. The effects of treatment are not therefore 'pure'. This may account for both the seeming lack of effectiveness of some treatments, or for the large variance in individual responses to treatment. It would surely be better to match subject with treatment according to some pre-determined criteria, particularly in research such as that described above, when the treatment of choice is so clearly driven by the individual's stage of change.

REFERENCES

Bien T., Miller W. and Borouhgs J. (1993) Motivational interviewing with alcohol outpatients.

Behavioural and Cognitive Psychotherapy, **21**, 347-356

Botelho R. and Novak S. (1993) Dealing with substance misuse, abuse and dependency.

Primary Care, **20**, (1), 51-70

Diclemente C. (1991) Motivational interviewing and stages of change.

In W. Miller and S. Rollnick, Editors. *Motivational interviewing*. The Guildford Press

Haynes P. and Ayliffe G. (1991) Locus of control behaviour; is high externality associated with substance abuse?

British Journal of Addictions, **86**, 1111-1117

Hodgson R. (1991) Substance misuse.

Behavioural Psychotherapy, **19**, 80-87

Miller W. (1983) Motivational interviewing with problem drinkers.

Behavioral Psychotherapy, **11**, 147-172

Miller W. (1994) Motivational interviewing: III. On the ethics of motivational interviewing. *Behavioural and Cognitive Psychotherapy*, **22**, 111-123

Miller W., Sovereign R. and Krege B. (1988) Motivational interviewing with problem drinkers: II. The drinker's check up as a preventative intervention.

Behavioural Psychotherapy, **16**, 251-268

Najavits L. and Weiss R. (1994) The role of psychotherapy in the treatment of substance use disorders.

Harvard Review of Psychiatry, **2**,(2), 84-96

Prochaska J., Diclemente C. and Norcross J. (1992) In search of how people change. Applications to addictive behaviour.

American Psychologist, **47**,(9), 1102-1114

Saunders B., Wilkinson C. and Phillips M. (1995) The impact of a brief motivational intervention with opiate users attending a methadone programme.

Addiction, **90**, 415-424

Van Bilsen H. and Whitehead B. (1994) Learning controlled drug use; a case study.

Behavioural and Cognitive Psychotherapy, **22**, 87-95

APPENDIX ONE

Major Research Project Literature Review.

From symptom to consultation: a model of childhood somatisation and general practitioner attendance.

Authors notes for Journal of Child Psychology and Psychiatry Page I

JOURNAL OF CHILD PSYCHOLOGY AND PSYCHIATRY

AIMS AND SCOPE

1. This Journal aims to enhance theory, research and clinical practice in child and adolescent psychology and psychiatry and the allied disciplines through the publication of papers concerned with child and adolescent development, especially developmental psychopathology and the developmental disorders. An important function of the Journal is to bring together empirical research, clinical studies and reviews of high quality, arising from different points of view. Contributions from any discipline that further knowledge of the mental life and behaviour of children are welcomed. Papers are published in English, but submissions are welcomed from any country. Contributions should be of a standard which merits presentation before an international readership.
2. Papers may assume any of the following forms.
 - (a) *Original articles.*
These should make an original contribution to empirical knowledge, to the theoretical understanding of the subject, or to the development of clinical research practice.
 - (b) *Review articles.*
These will survey an important area of interest within the general field and may be offered or commissioned. All papers in the Annual Research Review, Annotations and Practitioner Reviews are usually commissioned.
 - (c) *Case studies.*
These will cover important or novel clinical issues, including innovations in assessment, treatment or methodology.
 - (d) *Research notes.*
These are brief accounts of research work that are considered to be of interest to the readership even though their conclusions may be incomplete. They should not exceed 3000 words, excluding bibliographical references. Tables and figures should be kept to a minimum.
 - (e) *Debate and argument.*
This is a section for public scientific discussion and debate of material published in the Journal. Contributions should be brief and should not report new findings. Refereeing of papers in this section is at the discretion of the Editors. Authors whose papers receive comment in this section will be given the opportunity to reply.
3. *Book supplements*
The Association and Elsevier Science publish occasional book supplements to the Journal, under the editorship of the Joint Editors, assisted, where appropriate, by an Associate Editor. Intending authors or editors should send a synopsis for consideration by the Editors to the Journal Office at an early stage. All manuscripts will be assessed through the normal refereeing process and the final decision with regard to publication will be made by the ACPP Publications Sub-Committee.
4. *Announcements*
The Journal will publicize details of forthcoming international meetings and conferences only. Send copy to the Journal Secretary (address below) to arrive at least 6 months prior to the meeting deadline to ensure inclusion in an appropriate issue. Details of UK meetings may be advertised in the Review & Newsletter of the Association for Child Psychology and Psychiatry, which appears bimonthly. Copy should be sent to the Review & Newsletter Editors at the JCPP/ACPP Office.
5. The Journal is published in February, March, May, July, September, October and November, with an extra issue, the Annual Research Review, appearing as the first issue of each year, making a total of 8 issues per annum. The Journal is published on behalf of the Association for Child Psychology and Psychiatry by Elsevier Science.

NOTES FOR CONTRIBUTORS

General

1. Submission of a paper to the Journal will be held to imply that it represents an original contribution not previously published (except in the form of an abstract or preliminary report); that it is not being considered for publication elsewhere; and that, if accepted by the Journal, it will not be published elsewhere in the same form, in any language, without the consent of the Editors. When submitting a manuscript, authors should state in a covering letter whether they have currently in press, submitted or in preparation any other papers that are based on the same data set, and, if so, provide details for the Editors.
 2. Authors are reminded that piecemeal publication of small amounts of data from the same study is not acceptable. Each publication should report enough new data to make a significant and meaningful contribution to the development of new knowledge or understanding.
 3. Papers should be submitted to any Editor whose name appears on page i of the Journal. Papers for the Joint Editors should be submitted care of:
**The Journal Secretary,
JCPP/ACPP Office,
70 Borough High Street,
London SE1 1XF.
Telephone: 071 403 7458
Faxline: 071 403 7081
E-Mail: sgjt400@sghms.ac.uk**
Papers may be submitted directly to any of the Corresponding Editors whose addresses are shown on page i.
- ### Manuscript Requirements
1. Manuscripts should be typewritten, double spaced, with wide margins, on good quality A4 paper, using one side of the page only. Sheets should be numbered consecutively. Four copies should be sent. The author should retain a copy of the manuscript for personal use. Fax and electronic mail should not be used for initial submission of manuscripts, except in exceptional circumstances when normal postal services are inoperative.
 2. Authors whose papers have been given final acceptance are encouraged to submit a computer disk (5.25" or 3.5" HD/DD disk) containing the final version of the papers along with two printed copies to the editorial office: do not send disk with initial submission of paper. Please observe the following criteria:
 - (a) Specify what software was used, including which release (e.g. WordPerfect 4.0).
 - (b) Specify what computer was used (either IBM compatible PC or Apple Macintosh).
 - (c) Include the text file and separate table and illustration files, if available.
 - (d) The file should follow the general instructions on style/arrangement and, in particular, the reference style of this journal as given in the Notes for Contributors.
 - (e) The file should be single-spaced and should use the wrap-around end-of-line feature (i.e. no returns at the end of each line). All textual elements should begin flush left, no paragraph indents. Place two returns after every element such as title, headings, paragraphs, figure and table callouts, etc.
 - (f) Keep a back-up disk for reference and safety.
 3. Papers should be concise and written in English in a readily understandable style. Care should be taken to avoid racist or sexist language, and statistical presentation should be clear and unambiguous. The Journal follows the style recommendations given in the Publications Manual of the American Psychological Association (3rd edition, 1983), available from the Order Department, APA, P.O. Box 2710, Hyattsville, MD 20784, USA.

4. The Journal is **not** able to offer a translation service, but, in order to help authors whose first language is not English, the Editors will be happy to arrange for accepted papers to be prepared for publication in English by a sub-editor.

5. *Title*

The first page of the manuscript should give the title, name(s) and address(es) of author(s), and an abbreviated title (running head) of up to 80 characters. Specify the author to whom reprint requests should be directed. Authors requesting that their identity be withheld from referees should also provide a first page with the title only and adapt their manuscripts accordingly.

6. *Abstract*

The abstract should not exceed one hundred words and should be typed **double spaced**. (In addition, a longer summary may, if desired, be included at the end of the main article.)

7. Original articles and research reports should, in general, follow the conventional form: Introduction and review of the literature, Materials and Methods, Results and Discussion. To conserve space, less important portions of the paper, such as description of methods, should be marked for printing in smaller type. Descriptions of techniques and methods should be given in detail only when they are unfamiliar. In order to aid readers of the Journal, we encourage authors who are using acronyms for tests or abbreviations not in common usage to provide a list of them which will be printed to follow on from the Abstract.

8. *Acknowledgements*

These should appear on a separate sheet, **double spaced**, at the end of the body of the paper, before the References.

9. *Referencing*

The Journal follows the text referencing style and reference list style detailed in the Publication Manual of the American Psychological Association.

(a) *References in text*

References in running text should be quoted as follows: Smith and Brown (1990), or (Smith 1990), or (Smith, 1980, 1981a,b), or (Smith & Brown, 1982), or (Smith, 1982; Brown & Green, 1983).

For up to five authors, all surnames should be cited the first time the reference occurs, e.g. Smith, Brown and Jones (1981) or (Smith, Brown & Jones, 1981). Subsequent citations should use "*et al.*" (not underlined) and with no period after the "*et.*", e.g. Smith *et al.* (1981) or (Smith *et al.*, 1981).

For six or more authors, cite only the surname of the first author followed by "*et al.*" and the year for the first and subsequent citations. Note, however, that all authors are listed in the Reference List.

Join the names in a multiple author citation in running text by the word "and". In parenthetical material, in tables, and in the References List, join the names by an ampersand (&).

References to unpublished material should be avoided.

(b) *Reference list*

Full references should be given at the end of the article in alphabetical order, and not in footnotes. **Double spacing** must be used.

References to journals should include the authors' surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated and should be underlined.

References to books should include the authors' surnames and initials, the full title of the book, the place of publication, the publisher's name and the year of publication.

References to articles, chapters and symposia

contributions should be cited as per the examples below: Kiernan, C. (1981). Sign language in autistic children. *Journal of Child Psychology and Psychiatry*, 22, 215-220.

Jacob, G. (1983a). Development of coordination in children. *Developmental Studies*, 6, 219-230.

Jacob, G. (1983b). Disorders of communication. *Journal of Clinical Studies*, 20, 60-65.

Thompson, A. (1981). *Early experience: the new evidence*. Oxford: Pergamon Press.

Jones, C. C. & Brown, A. (1981). Disorders of perception. In K. Thompson (Ed.), *Problems in early childhood* (pp. 23-34). Oxford: Pergamon Press.

Use Ed.(s) for Editor(s); edn for edition; p.(pp.) for page(s); Vol. 2 for Volume 2.

10. *Tables and Figures*

These should be constructed so as to be intelligible without reference to the text. Tables should be **double spaced**. The approximate location of figures and tables should be clearly indicated in the text.

Figures will be reproduced by photo-offset means directly from the author's original drawing and photographs, so it is essential that figures are of a professional standard. Line drawings, good photo prints and sharp copy from laser printers are acceptable. Graphic work printed on a dot matrix printer is **not** acceptable. Illustrations for reproduction should normally be about twice the final size required. Half-tones should be included only when they are essential and they should be glossy prints, mounted on separate sheets. All photographs, charts and diagrams should be referred to as "Figures" and numbered consecutively in the order in which they are first referred to in the text.

Figure legends should be typed on a separate page.

11. *Nomenclature and symbols*

No rigid rules are observed, but each paper should be consistent within itself as to nomenclature, symbols and units. When referring to drugs, give generic names, not trade names. Greek characters should be clearly indicated.

Refereeing and publication

The Journal has a policy of anonymous peer review and the initial refereeing process seldom requires more than three months. Authors may request that their identity be withheld from referees but it is their responsibility to ensure that any identifying material is removed from the manuscript. Most manuscripts accepted for publication require some revision, details of which are sent to authors.

Rejected manuscripts will not be returned to authors, unless a request for the return of one copy is made to the Journal Secretary within 1 month of receiving notice of rejection.

When a paper is accepted for publication, the authors will receive proofs for correction when the manuscript is first set. Authors should correct printers' errors but not introduce new or different material at this stage.

The original manuscript and figures will be discarded 1 month after publication unless the Publisher is requested (on submission of the manuscript) to return original material to the author.

Fifty free reprints will be supplied to the senior author. Reprints can be obtained at a reasonable cost if ordered at the time when the first proofs are obtained. A reprint order will be sent with the proofs and reprints are normally despatched within 6 weeks of publication.

Whilst every effort is made by the publishers and editorial board to see that no inaccurate or misleading data, opinion or statement appears in this journal, they wish to make it clear that the data and opinions appearing in the articles and advertisements herein are the sole responsibility of the contributor or advertiser concerned. Accordingly, the publishers, the editorial board and editors, and their respective employees, officers and agents accept no responsibility or liability whatsoever for the consequences of any such inaccurate or misleading data, opinion or statement.

APPENDIX TWO

Major research Project Proposal.

1. Children's Somatisation Inventory Page III
2. Children's Health Locus of Control Page V
(entitled Children's Health Beliefs)
3. Health Norms Sorting Task Page VII
(entitled Health Norms Assessment)

Your Symptoms

Below is a list of symptoms that children and teenagers sometimes have. Circle the number telling how much you were bothered by each symptom during the past two weeks.

		In the last 2 weeks, how much were you bothered by each symptom?				
		Not at all	A little	Some	A lot	A whole lot
1.	Headaches	0	1	2	3	4
2.	Faintness or dizziness (feeling faint or dizzy)	0	1	2	3	4
3.	Pain in your heart or chest	0	1	2	3	4
4.	Feeling low in energy or slowed down	0	1	2	3	4
5.	Pains in your lower back	0	1	2	3	4
6.	Sore muscles	0	1	2	3	4
7.	Trouble getting your breath (when you're not exercising)	0	1	2	3	4
8.	Hot or cold spells (suddenly feeling hot or cold for no reason)	0	1	2	3	4
9.	Numbness or tingling in parts of your body	0	1	2	3	4
10.	A lump in your throat	0	1	2	3	4
11.	Weakness (feeling weak) in parts of your body	0	1	2	3	4
12.	Heavy feelings in your arms or legs (when they feel too heavy to move)	0	1	2	3	4
13.	Nausea or upset stomach (feeling like you might throw up, or having an upset stomach)	0	1	2	3	4
14.	Constipation (when it's hard to have a B.M. or go poop)	0	1	2	3	4
15.	Loose (runny) BM's or diarrhea	0	1	2	3	4

How much were you bothered by each symptom in the last 2 weeks?

	Not at all	A little	Some	A lot	A whole lot
Pain in your stomach or abdomen (stomach aches)	0	1	2	3	4
Your heart beating too fast (even when you're not exercising)	0	1	2	3	4
Difficulty swallowing	0	1	2	3	4
Losing your voice	0	1	2	3	4
Deafness (when you can't hear)	0	1	2	3	4
Double vision (when you see two of everything, even with glasses on)	0	1	2	3	4
Blurred vision (when things look blurry, even with glasses on)	0	1	2	3	4
Blindness (when you can't see at all)	0	1	2	3	4
Fainting or passing out	0	1	2	3	4
Memory loss or amnesia (losing your memory, not being able to remember anything)	0	1	2	3	4
Seizures or convulsions (your body moving or shaking and you can't control it)	0	1	2	3	4
Trouble walking	0	1	2	3	4
Paralysis or muscle weakness (your muscles are too weak to move, like you can't move your arms or legs at all)	0	1	2	3	4
Difficulty urinating (peeing)	0	1	2	3	4
Vomiting (or throwing up)	0	1	2	3	4
Feeling bloated or gassy	0	1	2	3	4
Food making you sick	0	1	2	3	4
Pain in your knees, elbows or other joints	0	1	2	3	4
Pain in your arms or legs	0	1	2	3	4
Pain when you urinate or pee	0	1	2	3	4

CHILDREN'S HEALTH BELIEF SCALE

NAME

DATE

	<u>STRONGLY AGREE</u>			<u>STRONGLY DISAGREE</u>	
1. Good health comes from being lucky.	5	4	3	2	1
2. I can do things to keep from getting sick.	5	4	3	2	1
3. Bad luck makes people get sick.	5	4	3	2	1
4. I can only do what the doctor tells me to do.	5	4	3	2	1
5. If I get sick, it is because getting sick just happens.	5	4	3	2	1
6. People who never get sick are just plain lucky.	5	4	3	2	1
7. My mother must tell me how to keep from getting sick.	5	4	3	2	1
8. Only a doctor or nurse keeps me from getting sick.	5	4	3	2	1
9. When I am sick, I can do things to get better.	5	4	3	2	1
10. If I get hurt, it is because accidents just happen.	5	4	3	2	1
11. I can do many things to fight illness.	5	4	3	2	1
12. Only the dentist can take care of my teeth.	5	4	3	2	1
13. Other people must tell me how to stay healthy.	5	4	3	2	1

	<u>STRONGLY AGREE</u>			<u>STRONGLY DISAGREE</u>	
14. I always go to the nurse right away if I get hurt at school.	5	4	3	2	1
15. The teacher must tell me how to keep from having accidents at school.	5	4	3	2	1
16. I can make choices about my health.	5	4	3	2	1
17. Other people must tell me what to do when I fall sick.	5	4	3	2	1
18. Whenever I feel sick, I go to see the school nurse right away.	5	4	3	2	1
19. There are things I can do to have healthy teeth.	5	4	3	2	1
20. I can do many things to prevent accidents.	5	4	3	2	1

HEALTH NORMS ASSESSMENT
CHILD VERSION

NAME

DATE

	<u>NOT HEALTHY</u>	<u>STILL HEALTHY</u>
1. Headache	0	1
2. Dizziness	0	1
3. Dry mouth	0	1
4. Bloody nose	0	1
5. Nausea	0	1
6. Diarrhoea	0	1
7. Sore eyes	0	1
8. Cold sore	0	1
9. Rapid pulse	0	1
10. Constipation	0	1
11. Stomach ache	0	1
12. Tingling in limbs	0	1
13. Chest pain	0	1
14. Swollen glands	0	1
15. Double vision	0	1
16. Seizures	0	1
17. Coughing	0	1
18. Fainting	0	1

	<u>NOT HEALTHY</u>	<u>STILL HEALTHY</u>
19. Fever	0	1
20. Ear ache	0	1
21. Loss of appetite	0	1
22. Sneezing	0	1
23. Ringing in ears	0	1
24. Sinus pain	0	1

APPENDIX THREE

Major Research Project Paper.

The role of maternal and child health beliefs in children's somatic symptoms and general practitioner attendance.

1. Author's notes for *Journal of Child Psychology and Psychiatry* Page IX
2. Data from project not included in paper. Page XI

JOURNAL OF CHILD PSYCHOLOGY AND PSYCHIATRY

AIMS AND SCOPE

1. This Journal aims to enhance theory, research and clinical practice in child and adolescent psychology and psychiatry and the allied disciplines through the publication of papers concerned with child and adolescent development, especially developmental psychopathology and the developmental disorders. An important function of the Journal is to bring together empirical research, clinical studies and reviews of high quality, arising from different points of view. Contributions from any discipline that further knowledge of the mental life and behaviour of children are welcomed. Papers are published in English, but submissions are welcomed from any country. Contributions should be of a standard which merits presentation before an international readership.
2. Papers may assume any of the following forms.
 - (a) *Original articles.*
These should make an original contribution to empirical knowledge, to the theoretical understanding of the subject, or to the development of clinical research practice.
 - (b) *Review articles.*
These will survey an important area of interest within the general field and may be offered or commissioned. All papers in the Annual Research Review, Annotations and Practitioner Reviews are usually commissioned.
 - (c) *Case studies.*
These will cover important or novel clinical issues, including innovations in assessment, treatment or methodology.
 - (d) *Research notes.*
These are brief accounts of research work that are considered to be of interest to the readership even though their conclusions may be incomplete. They should not exceed 3000 words, excluding bibliographical references. Tables and figures should be kept to a minimum.
 - (e) *Debate and argument.*
This is a section for public scientific discussion and debate of material published in the Journal. Contributions should be brief and should not report new findings. Refereeing of papers in this section is at the discretion of the Editors. Authors whose papers receive comment in this section will be given the opportunity to reply.
3. *Book supplements*
The Association and Elsevier Science publish occasional book supplements to the Journal, under the editorship of the Joint Editors, assisted, where appropriate, by an Associate Editor. Intending authors or editors should send a synopsis for consideration by the Editors to the Journal Office at an early stage. All manuscripts will be assessed through the normal refereeing process and the final decision with regard to publication will be made by the ACPP Publications Sub-Committee.
4. *Announcements*
The Journal will publicize details of forthcoming international meetings and conferences only. Send copy to the Journal Secretary (address below) to arrive at least 6 months prior to the meeting deadline to ensure inclusion in an appropriate issue. Details of UK meetings may be advertised in the Review & Newsletter of the Association for Child Psychology and Psychiatry, which appears bimonthly. Copy should be sent to the Review & Newsletter Editors at the JCPP/ACPP Office.
5. The Journal is published in February, March, May, July, September, October and November, with an extra issue, the Annual Research Review, appearing as the first issue of each year, making a total of 8 issues per annum. The Journal is published on behalf of the Association for Child Psychology and Psychiatry by Elsevier Science.

NOTES FOR CONTRIBUTORS

General

1. Submission of a paper to the Journal will be held to imply that it represents an original contribution not previously published (except in the form of an abstract or preliminary report); that it is not being considered for publication elsewhere; and that, if accepted by the Journal, it will not be published elsewhere in the same form, in any language, without the consent of the Editors. When submitting a manuscript, authors should state in a covering letter whether they have currently in press, submitted or in preparation any other papers that are based on the same data set, and, if so, provide details for the Editors.
 2. Authors are reminded that piecemeal publication of small amounts of data from the same study is not acceptable. Each publication should report enough new data to make a significant and meaningful contribution to the development of new knowledge or understanding.
 3. Papers should be submitted to any Editor whose name appears on page i of the Journal. Papers for the Joint Editors should be submitted care of:
**The Journal Secretary,
JCPP/ACPP Office,
70 Borough High Street,
London SE1 1XF.
Telephone: 071 403 7458
Faxline: 071 403 7081
E-Mail: sgjt400@sgnms.ac.uk**
Papers may be submitted directly to any of the Corresponding Editors whose addresses are shown on page i.
- ### Manuscript Requirements
1. Manuscripts should be typewritten, double spaced, with wide margins, on good quality A4 paper, using one side of the page only. Sheets should be numbered consecutively. Four copies should be sent. The author should retain a copy of the manuscript for personal use. Fax and electronic mail should not be used for initial submission of manuscripts, except in exceptional circumstances when normal postal services are inoperative.
 2. Authors whose papers have been given final acceptance are encouraged to submit a computer disk (5.25" or 3.5" HD/DD disk) containing the final version of the papers along with two printed copies to the editorial office: do not send disk with initial submission of paper. Please observe the following criteria:
 - (a) Specify what software was used, including which release (e.g. WordPerfect 4.0).
 - (b) Specify what computer was used (either IBM compatible PC or Apple Macintosh).
 - (c) Include the text file and separate table and illustration files, if available.
 - (d) The file should follow the general instructions on style/arrangement and, in particular, the reference style of this journal as given in the Notes for Contributors.
 - (e) The file should be single-spaced and should use the wrap-around end-of-line feature (i.e. no returns at the end of each line). All textual elements should begin flush left, no paragraph indents. Place two returns after every element such as title, headings, paragraphs, figure and table callouts, etc.
 - (f) Keep a back-up disk for reference and safety.
 3. Papers should be concise and written in English in a readily understandable style. Care should be taken to avoid racist or sexist language, and statistical presentation should be clear and unambiguous. The Journal follows the style recommendations given in the Publications Manual of the American Psychological Association (3rd edition, 1983), available from the Order Department, APA, P.O. Box 2710, Hyattsville, MD 20784, USA.

4. The Journal is not able to offer a translation service, but, in order to help authors whose first language is not English, the Editors will be happy to arrange for accepted papers to be prepared for publication in English by a sub-editor.

5. *Title*

The first page of the manuscript should give the title, name(s) and address(es) of author(s), and an abbreviated title (running head) of up to 80 characters. Specify the author to whom reprint requests should be directed. Authors requesting that their identity be withheld from referees should also provide a first page with the title only and adapt their manuscripts accordingly.

6. *Abstract*

The abstract should not exceed one hundred words and should be typed **double spaced**. (In addition, a longer summary may, if desired, be included at the end of the main article.)

7. Original articles and research reports should, in general, follow the conventional form: Introduction and review of the literature, Materials and Methods, Results and Discussion. To conserve space, less important portions of the paper, such as description of methods, should be marked for printing in smaller type. Descriptions of techniques and methods should be given in detail only when they are unfamiliar. In order to aid readers of the Journal, we encourage authors who are using acronyms for tests or abbreviations not in common usage to provide a list of them which will be printed to follow on from the Abstract.

8. *Acknowledgements*

These should appear on a separate sheet, **double spaced**, at the end of the body of the paper, before the References.

9. *Referencing*

The Journal follows the text referencing style and reference list style detailed in the Publication Manual of the American Psychological Association.

(a) *References in text*

References in running text should be quoted as follows: Smith and Brown (1990), or (Smith 1990), or (Smith, 1980, 1981a,b), or (Smith & Brown, 1982), or (Smith, 1982; Brown & Green, 1983).

For up to five authors, all surnames should be cited the first time the reference occurs, e.g. Smith, Brown and Jones (1981) or (Smith, Brown & Jones, 1981). Subsequent citations should use "et al." (not underlined) and with no period after the "et", e.g. Smith et al. (1981) or (Smith et al., 1981).

For six or more authors, cite only the surname of the first author followed by "et al." and the year for the first and subsequent citations. Note, however, that all authors are listed in the Reference List.

Join the names in a multiple author citation in running text by the word "and". In parenthetical material, in tables, and in the References List, join the names by an ampersand (&).

References to unpublished material should be avoided.

(b) *Reference list*

Full references should be given at the end of the article in alphabetical order, and not in footnotes. **Double spacing** must be used.

References to journals should include the authors' surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated and should be underlined.

References to books should include the authors' surnames and initials, the full title of the book, the place of publication, the publisher's name and the year of publication.

References to articles, chapters and symposia

contributions should be cited as per the examples below: Kiernan, C. (1981). Sign language in autistic children. *Journal of Child Psychology and Psychiatry*, 22, 215-220.

Jacob, G. (1983a). Development of coordination in children. *Developmental Studies*, 6, 219-230.

Jacob, G. (1983b). Disorders of communication. *Journal of Clinical Studies*, 20, 60-65.

Thompson, A. (1981). *Early experience: the new evidence*. Oxford: Pergamon Press.

Jones, C. C. & Brown, A. (1981). Disorders of perception. In K. Thompson (Ed.), *Problems in early childhood* (pp. 23-34). Oxford: Pergamon Press.

Use Ed.(s) for Editor(s); edn for edition; p.(pp.) for page(s); Vol. 2 for Volume 2.

10. *Tables and Figures*

These should be constructed so as to be intelligible without reference to the text. Tables should be **double spaced**. The approximate location of figures and tables should be clearly indicated in the text.

Figures will be reproduced by photo-offset means directly from the author's original drawing and photographs, so it is essential that figures are of a professional standard. Line drawings, good photo prints and sharp copy from laser printers are acceptable. Graphic work printed on a dot matrix printer is not acceptable. Illustrations for reproduction should normally be about twice the final size required. Half-tones should be included only when they are essential and they should be glossy prints, mounted on separate sheets. All photographs, charts and diagrams should be referred to as "Figures" and numbered consecutively in the order in which they are first referred to in the text. Figure legends should be typed on a separate page.

11. *Nomenclature and symbols*

No rigid rules are observed, but each paper should be consistent within itself as to nomenclature, symbols and units. When referring to drugs, give generic names, not trade names. Greek characters should be clearly indicated.

Refereeing and publication

The Journal has a policy of anonymous peer review and the initial refereeing process seldom requires more than three months. Authors may request that their identity be withheld from referees but it is their responsibility to ensure that any identifying material is removed from the manuscript. Most manuscripts accepted for publication require some revision, details of which are sent to authors.

Rejected manuscripts will not be returned to authors, unless a request for the return of one copy is made to the Journal Secretary within 1 month of receiving notice of rejection.

When a paper is accepted for publication, the authors will receive proofs for correction when the manuscript is first set. Authors should correct printers' errors but not introduce new or different material at this stage.

The original manuscript and figures will be discarded 1 month after publication unless the Publisher is requested (on submission of the manuscript) to return original material to the author.

Fifty free reprints will be supplied to the senior author. Reprints can be obtained at a reasonable cost if ordered at the time when the first proofs are obtained. A reprint order will be sent with the proofs and reprints are normally despatched within 6 weeks of publication.

Whilst every effort is made by the publishers and editorial board to see that no inaccurate or misleading data, opinion or statement appears in this journal, they wish to make it clear that the data and opinions appearing in the articles and advertisements herein are the sole responsibility of the contributor or advertiser concerned. Accordingly, the publishers, the editorial board and editors, and their respective employees, officers and agents accept no responsibility or liability whatsoever for the consequences of any such inaccurate or misleading data, opinion or statement.

DATA FROM MAIN RESEARCH PROJECT NOT INCLUDED IN MAIN PAPER.

These data were not included in the main research paper as they support previous research and therefore do not add significantly to knowledge about somatic symptoms in children.

DEMOGRAPHIC INFORMATION.

The relationship of demographic information (child age, sex, mothers education) was analysed in relation to somatic symptoms and general practitioner attendance.

a) Relation to child's symptoms (CSI-child version).

Chi square analysis of child sex and symptom group was significant ($p < .05$). Girls were over-represented in both the medium and high symptom groups.

Child age was not related to somatic symptoms using either Pearson's correlations or chi square with age in groups.

b) Relation to maternal estimation of child's symptoms (CSI-maternal version).

Chi square analyses showed that child sex and age were not related to the mothers estimation of child symptoms.

Maternal level of education was not related to her estimate of the child's symptoms.

c) Relation to general practitioner attendance.

Child age was not related to frequency of attendance.

Maternal level of education was not related to the child's frequency of attendance at the general practitioner.

RELATION OF CHILD ANXIETY AND DEPRESSION TO SYMPTOMS AND GENERAL PRACTICE ATTENDANCE.

a) Child's estimate of symptoms.

3 (CSI-maternal version group, low, medium or high) by 2(frequency of attendance) analysis of variance with child anxiety as the dependent variable. There were no interactions. There was a main effect of symptom group [$F(2,56)=12.3, p < .0005$] and scheffe post hoc tests showed that children in the high symptom group were significantly more anxious than children in both the low symptom group and the medium group not differing from either (means 3.8, 7.8 and 13.1). There was a trend to a main effect of frequency of attendance [$f(1,56) = 2.7, p=.1$], with frequent attenders being more anxious than non-frequent attenders (means 10.8 and 7.5).

A similar 2X3 anova using depression as the dependent variable again showed no interaction but two main effects. The effect of child symptom group [$F(2,56) = 14.8, p < .0005$] and scheffe post hoc tests showed that children in the low, medium and high symptom group significantly differed from one another (means 9.0, 19.1 and 24.6). There was a trend to an effect of frequency of attendance [$f(1,56) = 2.8, p = .1$], with frequent attenders being more depressed than non-frequent attenders (means 21.9 and 17.0).

b) Mothers estimate of symptoms.

3 (CSI-maternal version group, low, medium or high) by 2 (frequency of attendance) analysis of variance with child anxiety as the dependent variable. There were no interactions. There was a main effect of symptom group [$F(2,56) = 4.1, p < .05$] and scheffe post hoc tests showed that children in the high symptom group were significantly more anxious (12.2) than children in either the low symptom group (6.7), the medium group not differing from either (9.9). There was a main effect of frequency of attendance [$f(1,56) = 4.0, p < .05$], with frequent attenders being more anxious than non-frequent attenders (means 10.9 and 7.5).

A similar 2X3 anova using depression as the dependent variable again showed no interaction but two main effects. The effect of child symptom group [$F(2,56) = 6.0, p < .005$] and scheffe post hoc tests showed that children in both the medium and high symptom group were significantly more depressed than children in the low symptom group (means 14.9, 21.7 and 23.7). There was also an effect of frequency of attendance

[$f(1,56) = 4.3, p < .05$), with frequent attenders being more depressed than non-frequent attenders (means 21.9 and 17.0).

There is a statistical anomaly present in these analyses. There was a trend for children with higher anxiety and depression to be in the frequent attender group in the analyses described in section a). However, in section b), the same data achieved significance. It suggests that there may be either a type one (a non significant result which should be significant) or a type two errors (a significant result which should be non-significant) in this section of the data, and suggests that the significant finding should be treated with caution.

MATERNAL SYMPTOMS.

The mother's own symptoms were related to the demographic, psychiatric and adult health belief variables (using the adult health locus of control and health norms) but this was not reported in the paper.

There were no significant effects of maternal age or education on her own symptoms. Chi square analysis was significant ($p < .01$), with all 9 mothers with GHQ scores above caseness were in the high symptom group. Adult health beliefs were not related to the mothers own symptoms.

APPENDIX FOUR

Small Scale Service Evaluation Project

Developing the user friendly approach to family therapy: families' perceptions of the one way screen in the first meeting.

- | | |
|--|-------------------|
| 1. Author's notes for Journal of Family Therapy | Page XV |
| 2. Information leaflet for referring agencies | Page XVI |
| 3. Information leaflet for families | Page XVIII |
| 4. One way screen questionnaire | Page XXI |

JOURNAL OF FAMILY THERAPY

NOTES FOR AUTHORS

Papers submitted for publication should be original work not previously published in English and not currently submitted elsewhere for consideration. If accepted for publication, a paper cannot be published elsewhere in any language without the consent of Editors and publisher. It is a condition of acceptance that the Association for Family Therapy automatically acquires the copyright throughout the world.

Submission of Manuscripts

Four copies of each manuscript should be submitted to the Editorial Office.

Format for Manuscripts

Manuscripts should allow for 'blind' refereeing and be prepared accordingly. Manuscripts should be typed in double spacing throughout, *including quotations, notes and references* (single spacing leaves insufficient room for instructions) with wide margins (3 cm) on one side of standard A4 paper in the following order:

- a) Title Page: to contain the title of the paper, the full name of each author, their current professional position and work context and an indication of which author will be responsible for correspondence, proofs and reprints.
- b) Abstract: On a separate sheet, the title to be repeated followed by not more than 150 words summary of the paper.
- c) Organization of text: See copy of Journal for the format currently in use.
- d) References: These should be indicated in the text by the name and date e.g. 'Recently Smith (1990) . . .'. If more than two authors are listed, cite the reference as 'Smith *et al.* (1990) . . .'. References used should be listed at the end of the paper in alphabetical order according to the first author and be complete in all details, again following the Journal's existing format.
- e) Figures, tables etc: All figures and tables should be numbered with consecutive arabic numerals, have descriptive captions and be mentioned in the text. They should be kept separate from the text but an approximate position for them should be indicated.
- f) Style: Whilst the style of the Journal is generally formal, originality in presentation does not necessarily preclude publication if clarity and readability is thereby enhanced. Sexist language forms are unacceptable.

Evaluation of Manuscripts

The Editorial Office will acknowledge receipt of manuscripts which will be allocated to the Editors usually alternately. The Editor concerned will then arrange for evaluation by at least two referees as quickly as possible. Referees are asked to complete their assessment within 4 weeks of receipt of the manuscript after which the Editor will contact the author with an opinion.

Proofs

Authors will receive proofs for correction which must be returned within 48 hours of receipt.

Reprints

The senior author will be sent 25 reprints free of charge. Additional copies may be purchased when returning proofs.

MENT

kerman

articles include:
and social

into the symbolic
mental-societal
Jacques Lacan

and knowledge

Christine Howe)

peer group
Kenneth Rubin)

AL DEVELOPMENT

ISSN 0961-205X

it of World
est of World

7% GST

Visa account number

iry Date _____

__ Date _____

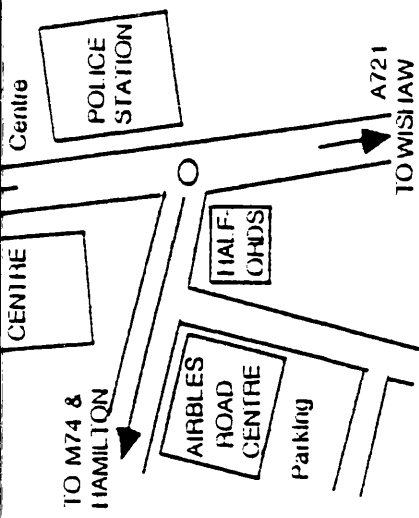
ve name of the journal)

108 Cowley Road,
well Publishers, 238 Main

hbridge, USA

CHILD AND

FAMILY CLINICS



FAMILY CLINICS

For Hamilton-East Kilbride District
and Motherwell-Clydesdale District:

CFC, "Airbles Road Centre",
49 Airbles Road,
MOTHERWELL, ML1 2TJ
Tel: 0698-254551

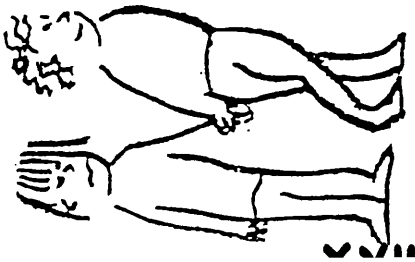


INFORMATION FOR FAMILIES

A multi-disciplinary service of Clinical Psychologists, Psychiatrists,
Nurse Therapists and Social Workers, provided by: Lanarkshire's
Community and Priority Services Unit and Strathclyde Regional Council.

Who are you?

Child and Family Clinics is a multi-disciplinary service of clinical psychologists, psychiatrists, nurse therapists and social workers. Three teams serve Lanarkshire's three districts.



Why do families come?

All families have difficulties from time to time. Sometimes they need outside help to cope. Generally families with children still at home are referred to us. We see all kinds of families.

What kinds of problems do you see?

Parents usually come and see us if they are worried about one child's behaviour or feelings or symptoms, or about family troubles, or because other agencies think we might be able to help.

What do you do to help?

We begin by listening to what people have to say about what is worrying them. We don't have any magic cure, but we do have a lot of experience and a range of skills within the team. It can be useful just to talk to someone from outside the family about how to tackle the problem. We try not to blame anyone because we believe that bringing up a family is difficult.

How long do we wait to be seen?

We aim to offer families an appointment that's within a few weeks of referral. Unfortunately this may not be possible and you may be asked to wait longer. But anyway you can contact us sooner if you need to.

Who needs to come?

We usually find it helps to meet all those living at home, and that's who we invite to the first appointment. This gives us a better understanding of the problem and what can be done to help. Parents may want to talk without their children present, or want us to see their child separately. And we may suggest this too. Sometimes children have serious worries they can only tell us privately. So we are always open to these possibilities.

How often will we need to come?

Problems may not go away immediately. But even one meeting can be helpful and we make further appointments as necessary. Usually families don't need more than a few sessions for problems to get moving. Follow-up appointments last an hour or more.

How do we get referred?

It's best to talk about it first with your GP, or with any other professional involved if they know you well. They then contact us.

What can we expect when we arrive?

You will not have to wait long or in a crowded waiting room. The person who sends the appointment letter will be your worker. We find "two heads are better than one" so we like to work with a colleague or two (who you can meet). Often a team works with the help of a one-way screen. We will explain and discuss this all further at the time. Allow for up to two hours from start to finish on the first occasion.

Is it confidential?

We keep records of our work to remind us and to help us plan ahead. If you want, we can usually share what's in these records. Most families are referred to us by GPs or other agencies and this needs contact between us. Contact with any agencies involved can be helpful, but we prefer to discuss this with you first



Can you help with travel costs?

Yes. Families on Income Supplement and Family Credit can have their travel expenses refunded at the clinic. Bring your benefit book or number. Details are in the DSS leaflet III1.

How do we make suggestions and complaints?

We welcome any kind of comment or complaint about our service. Initially these should be made to the person working with your family. If this is not satisfactory, then you should contact the Unit General Manager, CPSU HQ (0698-230500), or your local Health Council (0698-258188), both at Strathclyde Hospital, Motherwell M11 1JUV

CHILD AND FAMILY CLINICS



INFORMATION FOR PROFESSIONALS

What kind of service is CFC?

Child and Family Clinics provide a multi-disciplinary community-oriented service to the three districts of Lanarkshire. We see children, adolescents and their families who are experiencing problems of various kinds. Characteristically, we begin by offering an appointment at the clinic to all those living at home. There we consider with the family what next steps may be appropriate. As one of "a team" of different agencies, CFC offers consultation and training for other helping agencies.

Who and where are CFC?

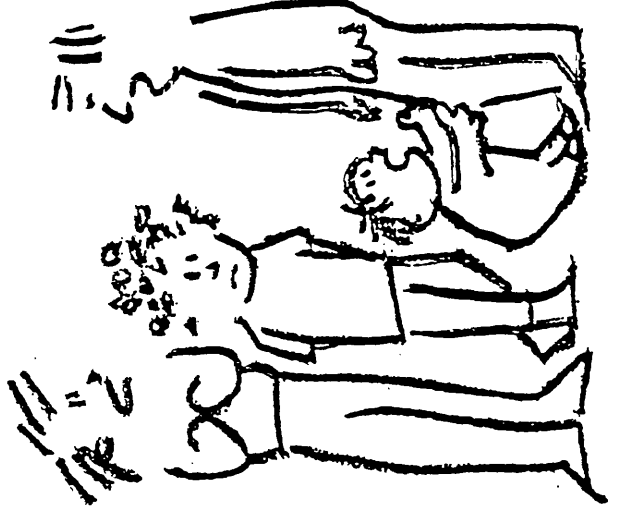
The three CFC District Teams operate from two base clinics in Coatbridge and Motherwell. Each team has a psychiatrist, a clinical psychologist, a social worker and a secretary. The service is being expanded, for example, with nursing staff. There may be trainees in all disciplines. See back cover for addresses and phone numbers of base clinics. Some local clinics are also held in peripheral areas such as Cumbernauld and East Kilbride.

Who gets referred? With what problems?

We routinely take referrals of children and teenagers up to 16 years old (or still at school) and their families or substitute families. We hope to expand in order to routinely accept referrals of older adolescents, especially if they still live at home. We are able to help with a wide range of problems and difficulties - about behaviour, feelings, physical symptoms, development, parenting, relationships, sexual or physical abuse and other stress-related or family troubles. While responding to concerns for specialist assessment and treatment, most often we help families cope with "problems of living".

How are referrals made?

Referrals of families (with or without an identified child) can be made by any helping agency. As we work in teams, we ask that referrals be addressed to the appropriate "CFC Team" for the district. Written referrals should be sent to the appropriate base clinic. Phone calls are welcome for preliminary discussion and are responded to promptly. Ask for "someone from the CFC Team" for the family's home district. Usually new referrals come from GPs and other local agencies rather than by self referral. In each District, there may be referral forms to use, and there may be special guidelines for referrals from social workers, and from hospitals concerning parasuicides.



How are cases allocated?

Referrals to the team are discussed at a weekly team meeting and allocated to one staff member. Unless there are specific reasons, the family should be prepared for the worker to be from any of the disciplines in the team. The skills and authority of all the disciplines are routinely available, shared and used in various ways as appropriate. Priority is assessed and a responsive and reviewed waiting list system operates. Within 10 days of receiving a routine referral, the family is sent a letter and other information.



Is there a leaflet for informing families about CfC?

Yes. It contains information about what to expect and other common questions families have. Referrers may find it useful to give a copy of the leaflet to help inform their decision about referral.

Please familiarise yourself with the leaflet and request further supplies as necessary. Families are sent the leaflet with their appointment letter.

What do CfC want to know about the family referred?

As well as the usual identifying data about the child and/or family (including postal code), it helps us to know:

- who in the family the referrer saw to make the referral
- what the presenting problem is
- what prompted asking for help and how urgent it seems
- who lives at home or is otherwise actively involved
- any other relevant family, social or medical background
- what kind of help the referrer and family are requesting of CfC
- any other agencies involved with any of the family
- whether the family will have difficulty travelling to the clinic.
- the referrer's own honest feeling or concern is also a useful clue.

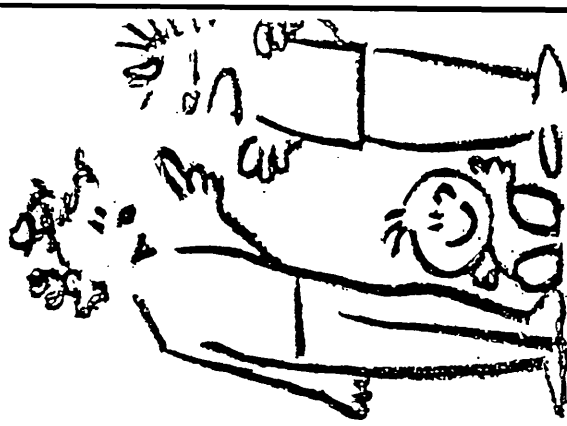
If you think the family or child should have special attention from one particular discipline at CfC, please explain this in the referral letter. GP referrals should carry the practice code number.

What happens at the appointment?

Meeting the family promptly in the waiting room, the worker makes sure the family knows and agrees to the interview procedure, which we can be flexible about. Generally, the interview will be for the worker to listen and talk with the family. Toys are available too. We find it often helps to work with live team consultation, perhaps using a one-way mirror. One or two team colleagues, whom the family can meet, observe the interview. Near the end of the session, there is a break for team consultation with the interviewer to help assess what to feed back to the family and how to advise them. Further appointments can then be considered. These may be for the family as a whole or for parts of it, for example, the parents or a child on their own. A first appointment lasts 1½ to 2 hours.

What happens next?

One or two appointments may be enough for some problems to resolve, while longer-term work may be needed for others. Family appointments are generally two to four weeks apart, but more frequent appointments may be necessary. We value and welcome continuing liaison with other agencies involved and discuss this with the family as necessary. Early in our involvement, we write to the referrer, and also before discharging a family.



What if other agencies are already involved?

We all know how "many hands" do not always "make light work"! Where several workers or agencies know the child and family, it helps if referral follows appropriate discussion or liaison amongst those already involved. With the family, please check if there is active involvement with social work, educational psychology, health visitor or any kind of hospital service. Any agency helping a family may wish to be contacted about proposed additional help. Liaison in itself may clarify and help the situation. But anyway, when referral to CfC is still required, it facilitates our involvement. Sometimes it is appropriate for the CfC worker to liaise with other agencies involved, arranging a case discussion if necessary.

When are CFC available?

The clinic service is open Monday to Friday 9.00 am to 5.00 pm except on local holidays. Outwith these hours, emergency advice for professional staff may be obtained from CFC staff on call at home. They can be contacted through the Hartwood Hospital switchboard (0501-823366).

When should referrals be made to other agencies instead?

For emergency situations, the CP or local Social Work Department (SWD) should be involved first. If the family is having urgent problems looking after their children or feel they are seriously out of control, contact the duty social worker in the local SWD. If the family need financial or legal advice, contact the Citizens Advice Bureau or a lawyer. If there are concerns primarily about schooling or learning difficulties, contact the school or the Schools Psychological Service. If there are marital difficulties, contact the local Marriage Guidance Service. If a parent is having problems coping in themselves and wishes individual help, the CP should help them identify the clinical psychology, psychiatry or other appropriate services in the area for adults. Phone numbers for these agencies can be found in the telephone directory.

Can other workers ask for consultation on their own work?

Yes. Usually social workers, educational psychologists or health visitors request this service. Social workers should discuss this with their senior and follow the guidelines for their district. Otherwise, contact the CFC Team for the district by phone or letter requesting a case consultation specifically. Case consultation does not exclude further active CFC involvement with a case.

Do CFC provide teaching and training?

We can offer a range of teaching and training services on a variety of subjects, including workshops and talks, observational visits to our clinics, and training placements for various disciplines. Enquiries should be addressed to the Team Co-ordinator of the team for the district.

What if more specialist services are needed?

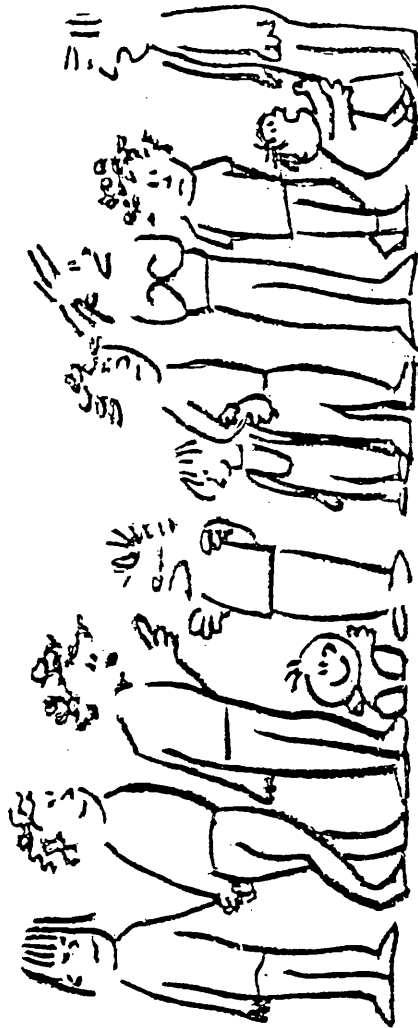
CFC should be used to assess, channel and coordinate referrals to specialist services outside Lanarkshire. For example, specialised developmental assessment, and psychiatric day and in-patient units are not available locally. But CFC is still the appropriate agency to assess and recommend referral to suitable services in DCFP Yorkhill, Gartnavel Royal, Crichton Royal Dumfries, Willowgrove in Livingston, and Glasgow's Fern Tower and Notre Dame Child Guidance Services

How is the service funded?

The service is free at the point of delivery, provided through rates and taxation by the Lanarkshire Health Board (PSU and Strathclyde Regional Council.

Are suggestions welcome?

Enquiries, suggestions, criticisms and complaints on any aspect of the service are welcomed. They can be addressed to the appropriate Team members or Team Co-ordinator. CFC's standards of work are quality assured through routine mutual team supervision of work, through audit and through consumer feedback using evaluation forms.



ONE WAY SCREEN QUESTIONNAIRE

We are trying to improve our service to children and families. The following questions will help us find out how you felt about the one-way screen during your first visit.

(PLEASE CIRCLE YOUR ANSWERS)

1. Did you know what a one way screen was before you came here? YES / NO
2. Did you read the section in the leaflet telling you the one way screen might be used. YES / NO
3. Was the information about the screen in the leaflet helpful?
, ...what else would you have liked to know YES / NO
4. Was the information given to you about the screen at the start of your first session useful?
.....what else would you have liked to know YES / NO
5. Did you feel able to share your concerns about the screen? YES / NO
If no.....could you tell us what stopped you?
6. Is it a good idea to meet the people behind the screen? Yes
No
Don't Mind
If you want to meet them, would you prefer Before or
After
The session

7. How quickly did you forget about the screen

0 - 5 mins
5-15 mins
15-30mins
Forgot Sometimes
Did Not Forget

3. How did you feel about the team taking a discussion break during the session?
If difficult..... can you tell us why you found it difficult?

Useful
Didn't mind
Difficult

1. Overall, did you feel it was useful to have other team members behind the screen, helping with the session.
If no..... can you tell us why not?

Yes / No
Don't know

0. Any other suggestions?

APPENDIX FIVE

Single Clinical Case research Study

A single case example of cognitive behaviour therapy for hypochondriasis: implications for research.

1. Author's notes for Behaviour, Research and Therapy

Page XXIII

BEHAVIOUR RESEARCH AND THERAPY
incorporating BEHAVIORAL ASSESSMENT

Information for Contributors

Behaviour Research and Therapy incorporating *Behavioral Assessment* will be published 8 issues/annum.

Neither the Editors nor the publisher accept responsibility for the views or statements expressed by authors.

In order to expedite the selection and prompt publication of papers, we have decided to discontinue the practice of supplying copies of referee's reports. Correspondence regarding decisions reached by the editorial committee is not encouraged.

This journal should be cited in lists of references as *Behaviour Research and Therapy*.

Manuscripts

All manuscripts submitted for publication for the regular section of the journal and all scientific correspondence should be sent to the Editor: Dr S. RACHMAN, Department of Psychology, University of British Columbia, Vancouver, British Columbia, Canada V6T 1Z4. Manuscripts for the *Behavioral Assessment* section should be sent to Dr S. TAYLOR, Department of Psychiatry, 2255 Wesbrook Mall, Vancouver, British Columbia, Canada V6T 2A1.

Manuscripts should be typewritten on *one side* of the paper, *double spaced* and in triplicate (one original and two carbon copies). The original manuscript and diagrams will be discarded one month after publication unless the publisher is requested to return original material to the author.

Manuscripts must be carefully checked and proof alterations—except printer's errors—should be minimal.

Disks

Authors are encouraged to submit a computer disk (5.25" or 3.5" HD/DD disk) containing the **final** version of the paper along with the **final** manuscript to the editorial office. Please observe the following criteria:

1. Send only hard copy when first submitting your paper.
2. When your paper has been refereed, revised if necessary and accepted, send a disk containing the final version with the final hard copy. **Make sure that the disk and the hard copy match exactly.**
3. Specify what software was used, including which release, e.g. WordPerfect 5.1.
4. Specify what computer was used (either IBM-compatible PC or Apple Macintosh).
5. Include the text file and separate table and illustration files, if available.
6. The file should follow the general instructions on style/arrangement and, in particular, the reference style of this journal as given below.
7. The file should be single-spaced and should use the wrap-around end-of-line feature, i.e. no returns at the end of each line. All textual elements should begin flush left; no paragraph indents. Place two returns after every element such as title, headings, paragraphs, figure and table call-outs.
8. Keep a back-up disk for reference and safety.

The articles submitted must contain original material which has not been published and which is not being considered for publication elsewhere. Papers accepted by *Behaviour Research and Therapy* may not be published elsewhere in any language without the consent of the Editor.

The title of the paper, the author's name and surname and the name and address of the institute, hospital etc. where the work was carried out, should be indicated at the top of the paper. Where possible, the Fax number of the **corresponding author** should be supplied with the manuscript, for use by the publisher.

Summaries. A summary, not exceeding 200 words, should be submitted on a separate sheet in duplicate. The summary will appear at the beginning of the article.

References should be prepared carefully using the *Publication Manual of the American Psychological Association* for style. They should be placed on a separate sheet at the end of the paper, double-spaced, and in alphabetical order.

References should be quoted in the text by giving the author's name, followed by the year, e.g. (Hersen & Barlow, 1976) or Hersen and Barlow (1976).

For *more than two* authors, all names are given when first cited, but when subsequently referred to, the name of the first author is given followed by the words "*et al.*" as for example—First citation: Nau, Caputo and Borkovec (1974) but subsequently, Nau *et al.* (1974).

[continued opposite

BEHAVIOUR RESEARCH AND THERAPY

incorporating BEHAVIORAL ASSESSMENT

Information for Contributors—continued]

References to journals should include the author's name followed by initials, year, paper title, journal title, volume number and page numbers, e.g.

Singh, N. N. (1980). The effects of facial screening on infant self-injury. *Journal of Experimental Therapy and Experimental Psychiatry*, 11, 131-134.

or

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561-565.

References to books should include the author's name followed by initials, year, paper title, editors, book title, volume and page numbers, place of publication, publisher, e.g.

Brownell, K. D. (1984). Behavioural medicine. In Franks, C. M., Wilson, G. T., Kendall, P. C. & Brownell, K. D. (Eds), *Annual review of behavior therapy* (Vol. 10, pp. 11-20). New York: Guilford Press.

Footnotes, as distinct from literature references, should be indicated by the following symbols: *, †, ‡, §, ||, ¶, commencing anew on each page.

Illustrations and diagrams should be kept to a minimum: they should be numbered and marked on the back with the author's name. Captions accompanying illustrations should be typewritten on separate sheets. Diagrams and graphs must be drawn with Indian ink on stout paper or tracing linen.

Photographs and photomicrographs should be submitted unmounted and on glossy paper.

The following standard symbols should be used in line drawings since they are easily available to the printers:



Tables and figures should be constructed so as to be intelligible without reference to the text, each table and column being provided with a heading.

Tables. Captions should be typewritten together on a separate sheet. The same information should not be reproduced in both tables and figures.

BUSINESS COMMUNICATIONS

All communications regarding advertising, subscriptions, changes of address, reprints etc., should be addressed to the publishers, Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England.

Proofs. Page proofs will be sent to the author (or the first-mentioned author in a paper of multiple authorship) for checking. **Corrections to the proofs must be restricted to printer's errors.** Any substantial alterations other than these may be charged to the author. Please note that **authors are urged to check their proofs carefully before return, since the inclusion of late corrections cannot be guaranteed.** In order to facilitate rapid publication, authors are requested to correct their proofs and return them immediately to Elsevier Science Ltd, Bampfylde Street, Exeter EX1 2AH, England.

Reprints. Reprints and copies of the issue (at a specially reduced rate) may be obtained at a reasonable cost, provided that they are ordered when the proofs are returned and using the reprint order form which will accompany the author's proofs.

APPENDIX SIX

Single Clinical Case Research Study

Down's syndrome and Alzheimer's disease: early presentation in a woman with mild learning difficulties.

1. Author's notes for Journal of Intellectual Disability Research Page XXV
2. Basic Social Knowledge Test Page XXVI

Journal of Intellectual Disability Research

Information for contributors

Papers (in English) should be sent to the Editor, *Journal of Intellectual Disability Research*, University of Wales College of Medicine, Meridian Court, North Road, Cardiff CF4 3BL, Wales, UK. Papers are accepted on the understanding that they have not been and will not be published elsewhere. The original and two copies of the manuscript should be submitted to aid refereeing and these should be typed (with a wide margin), double spaced, on one side of standard paper (A4—30×21 cm). A title page should contain the author's name(s), place of work, address for correspondence, full title and short running title. Authors should retain one copy of the text, tables and illustrations as the editor cannot accept responsibility for damage or loss of manuscripts.

The text should proceed through sections of Abstract, Introduction, Materials and Methods, Results and Discussion. Pages should be numbered consecutively in arabic numbers, but tables, footnotes, figure legends, including magnifications and acknowledgements should be submitted on separate sheets. Tables and figures should be referred to in the text together with an indication of their approximate position recorded in the text margin. The reference list should be in alphabetical order thus:

- Giblett E.R. (1969) *Genetic markers in Human Blood*. Blackwell Scientific Publications, Oxford.
- Moss T.J. & Austin G.E. (1980) Pre-atherosclerotic lesions in Down's syndrome. *Journal of Mental Deficiency Research* 24, 137-41.

Journal titles should be in full. References in text with more than two authors should be abbreviated to (Brown *et al.* 1977). Authors are responsible for the accuracy of their references.

Spelling should conform to *The Concise Oxford Dictionary of Current English* and units of measurements, symbols and abbreviations with those in *Units, Symbols and Abbreviations* (1977) published and supplied by the Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE. This specifies the use of S.I. units. Illustrations should be labelled with the figure number and author's name in soft pencil on the back identifying the top edge. Photographs should be glossy bromide prints of good contrast and well matched, preferably with a transparent overlay for protection. Magnifications should be notified to the exclusion of the insertion of scales on prints. Colour photographs will be allowed only in special circumstances and the author will be asked to contribute towards the cost of reproduction. Line diagrams should be drawn with black ink on tracing paper or white card, or supplied as glossy prints. Papers may be judged to require extra-rapid publication by the Editor and referees.

Page proofs will be sent to the author's address on the title page and should be returned within 3 days of receipt. Alterations in the text, other than corrections, may be charged to the author. Fifty offprints of each paper will be provided free of charge and additional copies may be

ordered when proofs are returned. A scale of charges will be sent with the proofs.

The *Journal of Intellectual Disability Research* is covered in *Adolescent Mental Health Abstracts*, *ASCA*, *CABS (Current Awareness in Biological Sciences)*, *Current Contents*, *ISI/BIOMED*, *Science Citation Index* and *Social Sciences Citation Index*.

Royal Society for Mentally Handicapped Children and Adults

The Royal Society for Mentally Handicapped Children and Adults is the largest national organization exclusively concerned with the mentally handicapped and their families. The primary objective of the Society is to secure for mentally handicapped people provision commensurate with their needs. To this end, the Society aims to increase public knowledge and awareness of the problems faced by mentally handicapped people and their families, and thus create a sympathetic climate of public opinion as a necessary prerequisite of their acceptance into the community.

The Royal Society for Mentally Handicapped Children and Adults provides:

- through a network of Local Societies and Regional Offices in all parts of the country, support and help for the parents of mentally handicapped children;
- funds and support for research into causation of various types of mental handicap;
- specialist advisory and information services for the lay public and for professional workers on all aspects of mental handicap;
- books and literature and, bi-monthly, the *Journal of Intellectual Disability Research* for consultants and research workers, and *Parents Voice* for parents and general readers;
- an ongoing programme to facilitate the sharing of knowledge on all aspects of mental handicap by means of symposia, conferences and information exchange sessions;
- residential facilities for further education and for care and holidays.

Royal Patron

H.M. Queen Elizabeth, The Queen Mother

President

The Lord Allen of Abbeydale GCB

Chairman

The Lord Rix CBE, DL, 123 Golden Lane, London, EC1Y 0RT

Telephone 071-454 0454

Fax 071-608 3254

RSMHC & A is a registered charity, supported entirely by voluntary contributions. Applications for membership, or information, are invited by the Secretary-General.

BASIC SOCIAL KNOWLEDGE TEST (BSKT) (Tick or X against each item)

- (xvii) Signature here:

Patient has knowledge of:-

- (v) Own age
- (vi) Own birthday and month, e.g. 2nd February
- (i) Current date
- (ii) Current weekday
- (iii) Names of weekdays
- (iv) Names of months

Application Form

- (vii) Recognition of all decimal coins
- (viii) a AND b required to score
Can patient add all these coins up correctly?
- (ix) Number of pence in £1
- (x) One to one number correspondence up to 10

One to one number correspondence up to 50

- (xi) Able to count in 10's to 100
- (xii) Digit span (ex ITPA)
- (xiii) Memory for sentences I (ex Binet Yr IV)
- (xiv) Memory for sentences II (ex Binet Yr XI)
use only if 100% OK on Yr IV
- (xv) Able to tell time
- (xvi) Knows primary colours

Reading Age (use Holborn or Daniels & Diack if patient's a 'phonic' reader)

Comprehension Schonell

- (xix) Writing ability

Verbal fluency - use standard stimulus picture (30" look 1½" talk) and write patient's verbatum response below

a) Calculate mean number of words per sentence = words

b) Calculate number of words in longest sentence = words

- (xxi) Mental Arithmetic 2+2; 4-3; 5+4; 10-4; 9+7; 14-9; 50-20

Social Sight Vocabulary

Postage Rates

APPENDIX SEVEN

Single Clinical Case Research Study

Accounting for individual stage of change in the treatment of substance abuse.

1. Author's notes for Addiction Research

Page XXVII

ADDICTION RESEARCH

Notes for Contributors

Submission of a paper to *Addiction Research* will be taken to imply that it represents original work not previously published, that it is not being considered elsewhere for publication, and that if accepted for publication it will not be published elsewhere in the same form, in any language, without the consent of editor and publisher. It is a condition of the acceptance by the editor of a typescript for publication that the publisher automatically acquires the copyright of the typescript throughout the world.

Submission of Manuscripts

Three copies of each manuscript should be submitted to the appropriate editor, as shown below. Each paper will be read by at least two referees.

North and South America and the Far East: Ernest Drucker, Montefiore Medical Centre, Albert Einstein College of Medicine, Bronx, New York 10467-2490, U.S.A.

United Kingdom, Europe, Scandinavia, Australia and New Zealand: John B. Davies, Addiction Research Group, Department of Psychology, University of Strathclyde, Glasgow G1 1RD, UK.

Format of Manuscripts

Manuscripts should be typed in double spacing with wide margins (3cm) on one side of standard A4 paper.

Title page: This should contain the title of the paper, a short running title, the name and full postal address of each author and an indication of which author will be responsible for correspondence, reprints and proofs. Abbreviations in the title should be avoided.

Abstract: This should not exceed 150 words and should be presented on a separate sheet, summarising the significant coverage and findings.

Key words: Abstracts should be accompanied by up to six key words or phrases that between them characterise the contents of the paper. These will be used for indexing and data retrieval purposes.

Text Headings

All headings in the text should be set over to the left-hand margin, and the text should begin on the next line. Type first level (sectional) headings all in capitals. For second and third level headings, only the first letter of the first word should be a capital. Underline third level headings.

For example:

FIRST LEVEL TEXT HEADINGS

Second level text headings

Third level text headings

References

References should be indicated in the text by the name and date system: either "Recent work (Smith, 1984) ..." or "Recently Smith (1984) ...". If more than three authors are listed, cite the reference as "Smith et al. (1984) ...". References should be collected and typed at the end of the paper in alphabetical order according to the first author. They should be complete in all details, including article, book and journal titles in *full*.

Examples:

Johnston, M. (1984) Dimensions of recovery from surgery. *International Review of Applied Psychology*, 33,(4), 505-520

Steptoe, A. and Mathews, A. (1984) Editors. *Health Care and Human Behaviour*, London: Academic Press

Figures

All figures should be numbered with consecutive Arabic numerals, have descriptive captions and be mentioned in the text. Figures should be kept separate from the text but an approximate position for each should be indicated in the margin. It is the author's responsibility to obtain permission for any reproduction from other sources.

Preparation: Figures must be of a high enough standard for direct reproduction. They should be prepared in black (india) ink on white card or tracing paper, with all the lettering and symbols included. Axes of graphs should be properly labelled and appropriate units given. Photographs intended for halftone reproduction must be high quality glossy originals of maximum contrast. Redrawing or retouching of unsuitable figures will be charged to authors.

Size: Figures should be planned so that they reduce to 10.5cm column width. The preferred width of submitted drawings is 16-21sm, with capital lettering 4mm high, for reduction by one-half. Photographs for halftone reproduction should be approximately twice the desired size.

Captions: A list of figure captions should be typed on a separate sheet and included in the typescript.

Tables

Tables should be clearly typed with double spacing. Number tables with consecutive arabic numerals and give each a clear descriptive heading. Avoid the use of vertical rules in tables. Table footnotes should be typed below the table, designated by superior lower-case letters.

Proofs

Authors will receive proofs (including figures) by air mail for correction, which *must* be returned within 48 hours of receipt. Authors' alternations in excess of 10% of the original composition cost will be charged to authors.

Reprints

Twenty-five reprints per article will be sent to the senior author free of charge. Additional copies may be purchased when returning proofs.

Page Charges

There are no page charges to individuals or to institutions.

