

SCIENTIFIC
SECTION

Psychological support for orthognathic patients – what do orthodontists want?

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Aims: (1) To evaluate consultant orthodontist opinion on referral of orthognathic patients to a liaison psychiatrist or psychologist and (2) To investigate the value of training orthodontic specialists in recognition of patients with psychological profiles that might affect orthognathic outcome.

Design: Questionnaire-based study

Subjects and Methods: A structured questionnaire was distributed to all consultant orthodontists in the UK.

Results: Approximately 40% of consultants thought that up to 10% of their orthognathic patients would benefit from psychological assessment by appropriately trained personnel. Twenty per cent of consultants were not certain what proportion of their patients would benefit from referral and over half the respondents said they do not refer any orthognathic patients for assessment. The most common reasons for referral were past/current psychiatric history (36%), unrealistic expectations (32%), 'gut instinct' (14%), no significant clinical problem (13%). Reasons not to refer were: nobody to refer to (30.5%), fear of patient reacting badly (15.8%), not sure who to refer to (14.7%), response from mental health team not useful (12.4%), waiting list too long (9.6%). The majority of clinicians felt they would benefit from training in this field (84.7%), as over 80% reported no teaching or training in psychological assessment/management.

Conclusions: Although we have no evidence to prove that interdisciplinary care is better for patients, clinical experience and reports from clinicians working in large centres, tells us there are probable advantages. The development of a training programme for both orthodontists and mental health teams would seem to be beneficial for both clinicians and patients.

Key words: Liaison psychiatry, maxillofacial surgery, orthodontics, orthognathic treatment, psychology

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Introduction

Little is known about psychosocial outcomes and body image following orthognathic treatment or about the risk factors that influence patient satisfaction and dissatisfaction. Older studies that have looked at satisfaction following orthognathic treatment have been predominantly retrospective. Those studies that have been prospective have not identified factors which account for the variance in satisfaction. A means of identifying those patients who will respond poorly to treatment would be ideal but does not appear to currently exist.

Selection of patients for orthognathic treatment involves various factors that may ultimately influence levels of patient satisfaction.¹ These include: physiological; medical; interpersonal and psychological. The majority of studies investigating the psychological aspects of patients undergoing orthognathic treatment, have shown that patients seeking orthognathic treatment are psychologically well adjusted prior to surgery, and appear to have fewer deficits in their personality dimensions than those patients seeking other 'cosmetic-type' procedures.^{2–4} However, it has been reported that a surprisingly large number of individuals with dentofacial deformity experience a level of psychological distress that warrants intervention.⁵

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What makes patients satisfied?

Lavell (cited in Lewis *et al.*)¹ emphasized that satisfaction begins with selection of appropriate patients. They suggested that an evaluation should be made of the patients' Self-assessment of attractiveness, Anxiety, Fear and Expectations and this evaluation could be represented by the acronym 'SAFE'. However, such a strategy might be overly conservative and exclude some of the patients who stand to benefit the most.

High satisfaction with orthognathic treatment has also been related to:

- Realistic expectations with regard to outcome⁶
- Patients with a realistic expectation of post-operative discomfort and recovery⁷
- Effective pre-operative preparation of the patient⁸
- Good psychological adjustment both pre- and post-operatively⁴

Predicting patients who may not be satisfied

Previous studies have found approximately 5-8% of patients are dissatisfied post-treatment.⁹ A number of factors seem to make some patients better surgical candidates than others. For example, those who have a reasonable body image; those who know what they want to achieve from treatment and can answer positively to questions such as 'What do you think is wrong?' or 'Why do you want treatment?'¹⁰ and those with a long history of unhappiness about a particular feature rather than having recently developed concerns, all seem to be more satisfied post-operatively.¹¹ Kiyak *et al.*¹² investigated predictors for psychological responses to orthognathic treatment and found that neuroticism (the tendency to experience emotional distress and inability to cope with stress) and external motivation (*e.g.* family pressure), were significant predictors of reduced satisfaction. Clinicians should also be aware of Body Dysmorphic Disorder (BDD), which has been previously identified in orthodontic patients.^{13,14}

Clinicians should be particularly concerned where patients have already sought several opinions elsewhere or had previous cosmetic-type surgical procedures. A retrospective study of BDD patients presenting to a psychiatry clinic showed that 23% had undergone surgery which had only rarely improved their symptoms.¹⁵ Successful surgery on BDD patients with minimal deformities has been reported, however, in these cases it is important to arrange a joint surgical/mental health assessment beforehand.¹⁶

In summary, it is essential that patients are assessed carefully prior to starting orthognathic treatment. The role of the liaison psychiatrist* or clinical psychologist[†] is well recognized by craniofacial¹⁷ and plastic surgery services.¹⁸ In addition, most cleft teams in the UK have the benefit of a mental health professional. It must therefore be questioned whether orthognathic patients would benefit from the same service.

Aims of the study

The aims of the study were:

1. To evaluate consultant orthodontist opinion on referral of orthognathic patients to a liaison psychiatrist or clinical psychologist.
2. To investigate the demand for training orthodontic specialists in recognition of patients with psychological profiles that might affect orthognathic outcome.

Subjects and Method

The Questionnaire (see Appendix 1)

A structured questionnaire was designed following consultation between two orthodontists and the Department of Mental Health Science. The questionnaire consisted of 8 questions and was divided into two sections. The first 5 questions considered referral of orthognathic patients for consultation by a psychiatrist or psychologist, and the last 3 questions related to the orthodontists' own experience of training in psychological assessment.

Pilot Study

Following development of the questionnaire, it was distributed to 10 consultant orthodontists who were asked to make comments on items that were unclear and to make suggestions of alternative responses.

All questionnaires were completed correctly and additional responses were added to the questionnaire. Space was also provided for additional comments. No further piloting took place.

*Liaison psychiatrist: someone who is concerned with the overlap between psychiatry and the rest of medicine and surgery. <http://www.studentbmj.com/issues/03/04/careers/106.php>

†Clinical psychology: the branch of psychology devoted to the study, diagnosis and treatment of mental and behavioural disorders. <http://cirrie.buffalo.edu/thesc.html>

Distribution of Questionnaires

A letter introducing the study, the questionnaire and a return envelope were posted to all registered orthodontic consultants in the UK in June 2005. Contact details were obtained from the British Orthodontic Society Consultant Group database, following permission from the Consultant Orthodontist Group. A coding system was used to maintain anonymity but to allow a second questionnaire to be posted if the first questionnaire was not returned.

Response Rate

A good response was obtained with 183 of the 245 questionnaires returned (75%). Of these, 177 were completed; six consultants (3% of respondents) returned their questionnaire blank explaining that this was because they had no involvement in orthognathic treatment.

Statistical Analysis

Analysis of the data was performed using SPSS for Windows package Version 12.0 (SPSS Corporation, Chicago, USA).

Results

Q1. Approximately what proportion of orthognathic patients in your unit do you think would benefit from psychological or psychiatric referral? (Table 1)

Nearly 40% of consultant orthodontists in the UK thought that 10% of their orthognathic patients would benefit from referral. Just over 12% thought that all orthognathic patients should be referred, whilst nearly 11% were of the opinion that none of their orthognathic patients would benefit from a psychological or psychiatric consultation. Approximately 20% of consultants were not certain what proportion of their patients would benefit from referral.

Table 1 Responses to the question 'What proportion of your patients would benefit from psychological or psychiatric referral'

Options given: % of Patients	Frequency	%
100%	22	12.4
75%	3	1.7
50%	11	6.2
25%	19	10.7
10%	67	37.9
None	19	10.7
Don't know	36	20.3

Q2. Approximately what proportion of orthognathic patients do you refer for psychological assessment/management? (Table 2)

Over half of the respondents (55.9%) said they do not refer any orthognathic patients for psychological assessment/management. Just over 40% of consultants referred 10% of their patients for an assessment and only 1 (0.6%) clinician referred every orthognathic patient.

N.B. Q3 and Q4 were only completed by consultants who make referrals for psychological assessment (78 clinicians – 44.1%)

Q3. Reasons for referring patients (Table 3)

The most common reasons for referral were: past/current psychiatric history (36%); unrealistic expectations (32%); 'gut instinct' (14%); no significant clinical problem (13%).

Q4. When in the treatment process do you most commonly refer?

Ninety-eight per cent of clinicians said they would refer prior to starting any treatment. Only 1% refer during pre-surgical orthodontics and 1% post-surgery.

Q5. What stops you referring? (Table 4)

Several reasons were given including: nobody to refer to (30.5%); fear of patient reacting badly (15.8%); not sure who to refer to (14.7%); response from mental health team not useful (12.4%) and waiting list too long (9.6%). Other more individual responses included: not had a severe enough case; no need for referral; referral not always necessary; resistance from patient; psychiatric opinion of no value and mental health team unable to cope with referrals. Of those responding, 8.5% did not answer this question.

Q6. Do you use any psychological questionnaires at initial assessment?

Only 6.8% of clinicians used questionnaires at initial assessment. These were mainly self-constructed questionnaires some of which incorporated components of validated questionnaires, for example, the Hospital Anxiety and Depression (HAD) Scale.¹⁹ The remaining 93.2% used no form of psychological questionnaire.

Table 2 Responses to the question 'What Proportion of orthognathic patients do you refer for psychological assessment/management'

Options given: % of Patients	Frequency	%
100%	1	0.6
75%	0	0
50%	3	1.7
25%	2	1.1
10%	72	40.7
None	99	55.9

Table 3 Responses to the question 'Why do you refer patients to a mental health professional' N.B. Clinicians who did not refer patients answered questions 1–2 and 5–8 only

Reason	Ranked 1st (%)	Ranked 2nd	Ranked 3rd	Not ranked
No significant clinical problem	10 (13)	7	8	43
Past/current psychiatric history	28 (36)	13	10	23
2nd/3rd opinion	1 (1)	2	6	57
Numerous consultations	3 (4)	7	7	52
Unrealistic expectations	25 (32)	23	10	16
Very recent concern	0 (0)	1	3	70
Older patient	0 (0)	1	0	71
Gut instinct	11 (14)	9	11	29
Clinician had problems with orthognathic patient before	1 (1)	1	0	72
Previous facial surgery	1 (1)	4	3	61
Family pressure/objection	1(1)	2	7	54
Other	2 (3)	5	0	68

Q7. Have you ever had any teaching in psychological assessment and management?

Most clinicians (80.8%) had no teaching in psychological assessment/management. Of those who had received teaching, the majority (16.9%) received this during post-graduate training, and only 2.3% of clinicians had teaching in this subject as an undergraduate.

Q8. Would you feel you would benefit from training in this field?

The majority of clinicians (84.7%) felt they would benefit from some training. No response was given by 0.6% clinicians and 14.7% considered there would be no benefit from training.

Discussion

The high response rate makes this study representative of consultant orthodontists working in the UK today. Of the respondents, nearly 40% thought that approximately 10% of their orthognathic patients would benefit from referral to a member of the mental health team. This is matched by 40% of consultants actually referring

10% of their orthognathic patients. Although only one consultant referred every orthognathic patient, a number of consultants felt that all patients should be seen by a clinical psychologist or liaison psychiatrist. However, to do this would have significant national implications on funding, manpower planning and training.

Why do clinicians refer orthognathic patients for assessment?

The most common reason reported for referring orthognathic patients for psychological assessment was 'if the patient has a past/current psychiatric history'. If and when clinicians are told or suspect that a patient may have a psychiatric disorder, it would be inadvisable to offer surgery without an appropriate psychiatric assessment. It is important to realize that there is no conclusive evidence to state that any particular psychiatric disorder should be an absolute contraindication to orthognathic treatment. However, identification of such disorders is extremely important in order to make appropriate treatment plans and, if a disorder is identified, the team and patient must be confident that there are appropriate resources to provide the additional support or treatment.

Unrealistic expectations and no significant clinical problem were also suggested as reasons to refer to the psychiatric team. The majority of orthodontists and maxillofacial surgeons are familiar with patients who request treatment for small or apparently non-existent defects. This kind of request may suggest a diagnosis of BDD. Great care is then required as current opinion suggests that surgery for BDD patients is not helpful and can lead to increased symptoms.^{20,21} However, there are no prospective studies looking at orthognathic treatment in BDD patients, and it is possible that patients with less severe symptoms may benefit from treatment with

Table 4 Responses to the question 'What prevents you from referring patients for a mental health assessment'

Reason	% clinicians
Too much time involved	0.6
Cost of referral	1.1
Nobody to refer to	30.5
Not sure who to refer to	14.7
Waiting list too long	9.6
Response not useful	12.4
Fear of patient reacting badly	15.8
Other	29.9

appropriate psychological support. Recent NICE guidelines²² state that 'people with suspected or diagnosed BDD seeking cosmetic surgery or dermatological treatment should be assessed by a mental health professional with specific expertise in the management of BDD'. This further enhances the importance of having mental health support on our orthognathic teams.

'Gut instinct' was also reported as a reason to refer patients for an opinion. This perhaps highlights the difficulties faced by orthodontists who, with limited training in this field and little in the way of evidence base to guide them, often rely on previous, and sometimes unfortunate, clinical experiences.

These findings concur with the literature on aesthetic surgery which, in general, suggests that clinicians should refer patients with numerous past cosmetic treatments, unrealistic expectations, minimal deformity or a history of past psychiatric illness to a mental health professional.²³

When in treatment do you refer?

Almost all patients were referred prior to starting treatment. Although clinical experience suggests that patients who are referred after the event can be much more difficult to help, it is still important to send them at this stage even if a potential problem was not detected until after the start of treatment.

Why consultants do not refer?

The disparity arises with consultants who do not make referrals. Over half of consultants do not refer any patients for a psychiatric or psychological consultation even though only very few believed it to be of no benefit to their patients. This suggests that many consultants are either unsure if it is appropriate to refer, or would like to refer but are unable to do so for some reason.

The main reason given was that they had 'nobody to refer to'. This is clearly a resources issue and is not easy to solve as it raises issues of funding and manpower. Unfortunately, acute psychiatry services are only financed to deal with severe and enduring mental illness and therefore have little experience and funding for this kind of work. A clinical psychologist or a liaison psychiatrist, who is concerned with the emotional needs of patients with a physical condition, is more able to provide appropriate support for the orthognathic patient.

'Fear of the patient reacting badly' was also given as a reason not to refer. There are no published studies examining patients' reactions to mental health referral. Good practice suggests that referrals are more likely to be productive if patients feel that they will have an

opportunity to explore their concerns and expectations of treatment rather than being told that 'they need to see a psychologist to assess whether or not they should have surgery'. The patient should be made to feel that this referral is a normal part of the overall orthognathic assessment and treatment planning process. Obviously, it would be preferable for the psychiatrist/psychologist to be present on the joint orthognathic clinic. However, in reality, this is often not possible and so the patient should be informed that it would be beneficial for them to meet another member of the team to allow them more time to discuss their concerns and expectations.²⁴

'Not sure who to refer to' also suggests a training issue. Orthodontists need to be made aware of the links that already exist in individual hospitals. For example, there are often links between Liaison Psychiatry and Plastic Surgery or Dermatology. It is perhaps possible to explore these existing links, with a view to providing the same service for orthognathic patients.

The issue of training for the mental health team is also in question, with a considerable number of respondents stating that the 'response from the mental health team was not useful.' Liaison psychiatrists and clinical psychologists need to undergo training in the processes associated with orthognathic treatment to ensure complete understanding of the treatment process and resulting outcome. With little or no training in this area, it is not surprising that orthodontic consultants occasionally find mental health team responses as 'unhelpful' or 'have no knowledge – all patients get green light'. Arranging for the mental health team to observe an orthognathic clinic, supported by some form of presentation and/or workshop, would aid understanding in this field.

The use of psychological questionnaires at initial assessment

Few consultants reported that they use psychological assessment questionnaires at initial assessment. Clinicians may be unaware of the many health measurements available for use in the assessment and management of patients or, alternatively, may find that those which are available are not always appropriate for orthognathic patients. Condition-specific questionnaires may prove more helpful as the questions are more relevant to the patient, and one has been devised for dentofacial deformity by Cunningham *et al.*^{25,26}

Experience of training in psychological assessment

Less than 20% of consultant orthodontists had received any teaching in psychological assessment and management. In the majority of cases, this training occurred at

postgraduate level. It could be anticipated that the present day undergraduate dental training programme, which incorporates behavioural sciences and communication skills training, may lead to enhanced knowledge in this field.

The questionnaire established that the majority of consultants were supportive of further training. However, a small number had reservations about training or did not wish to undergo any further training. Examples of reasons given for this were 'training not necessary as affects so few patients', 'no problem exists', 'it is the responsibility of the maxillofacial surgeon', 'training would have both legal and ethical implications'. Clearly, most people felt that some form of education would be appropriate. This training should be provided and reinforced at all levels: during undergraduate and postgraduate curricula as well as forming part of continuing professional development throughout a consultant's career. The NICE guidelines go so far as to recommend that BDD teams should work with patients and their carers to help train both mental health professionals and clinicians involved in their physical treatment.²² The development of a training programme, which includes multidisciplinary days, can only improve knowledge in this area and consequently enable the provision of higher quality care for patients.

Conclusions

- The majority of consultants said a proportion of their patients would benefit from psychological assessment, although currently only a small number of patients are actually referred.
- Reasons given for not referring could be resolved with training and appropriate funding.
- The majority of consultants were supportive of further training. Only 15% had reservations about, or did not wish to undergo further training.

Recommendations

- To establish a truly integrated research and teaching programme for orthognathic teams (including mental health professionals)
- This will require prospective long term studies to produce appropriate guidelines and to establish evidence based research which will strengthen the argument for future funding .

Contributors

Karen Juggins, Susan Cunningham, Justin Shute and Charlotte Feinmann were jointly responsible for study

design; data analysis and interpretation; critical revisions and final approval of the article. Karen Juggins was responsible for recruitment of participants; data collection and drafting the article. Karen Juggins is the guarantor.

References

1. Lewis CM, Lavell S, Simpson MF. Patient selection and patient satisfaction. *Clin Plast Surg* 1983; **10**: 321–32.
2. Kiyak HA, Hohl T, Sherrick P, West RA, McNeill RW, Bucher F. Sex differences in motives for and outcomes of orthognathic surgery. *J Oral Surg* 1981; **39**: 757–64.
3. Jacobson A. Psychological Aspects of dentofacial esthetics and orthognathic surgery. *Angle Orthod* 1984; **54**: 18–35.
4. Flanary CM, Barnwell GM, VanSickels JE, Littlefield JH, Rugh AL. Impact of orthognathic surgery on normal and abnormal personality dimensions: a 2– year follow-up study of 61 patients. *Am J Orthod Dentofacial Orthop* 1990; **98**: 313–22.
5. Phillips C, Bennett ME, Broder HL. Dentofacial disharmony: psychological status of patients seeking treatment consultation. *Angle Orthod* 1998; **68**: 547–56.
6. Edgerton MT Jr, Knorr NJ. Motivational patterns of patients seeking cosmetic (esthetic) surgery. *Plast Reconstr Surg* 1971; **48**: 551–57.
7. Kiyak HA, McNeill RW, West RA, Hohl T, Bucher F, Sherrick P. Predicting psychological responses to orthognathic surgery. *J Oral Maxillofac Surg* 1982; **40**: 150–55.
8. Flanary CM, Alexander JM. Patient responses to the orthognathic surgical experience: factors leading to dissatisfaction. *J Oral Maxillofac Surg* 1983; **41**: 770–74.
9. Cunningham SJ, Crean SJ, Hunt NP, Harris M. Preparation, perceptions, and problems: a long-term follow-up study of orthognathic surgery. *Int J Adult Orthod Orthognath Surg* 1996; **11**: 41–47.
10. Peterson LJ, Topazian RG. Psychological consideration in corrective maxillary and midfacial surgery. *J Oral Surg* 1976; **34**: 157–64.
11. Cunningham SJ, Feinmann C. Psychological Assessment of Patients Requesting Orthognathic Surgery and the Relevance of Body Dysmorphic Disorder. *Br J Orthod* 1998; **25**: 293–98.
12. Kiyak HA, McNeill RW, West RA, Hohl T, Heaton PJ. Personality characteristics as predictors and sequelae of surgical and conventional orthodontics. *Am J Orthod* 1986; **89**: 383–92.
13. Hepburn S, Cunningham SJ. Body dysmorphic disorder in adult orthodontic patients. *Am J Orthod Dentofacial Orthop*. Accepted for publication May 2005.
14. Cunningham SJ, Feinmann C. Psychological assessment of patients requesting orthognathic surgery and the relevance of body dysmorphic disorder. *Br J Orthod* 1998; **25**: 293–98.

15. Phillips KA, Grant J, Siniscalchi J, Albertini RS. Surgical and nonpsychiatric medical treatment of patients with body dysmorphic disorder. *Psychosomatics* 2001; **42**: 504–10.
16. Munro A, Stewart M. Body dysmorphic disorder and the DSM-IV: the demise of dysmorphophobia. *Can J Psychiatry* 1991; **36**: 91–96.
17. Lefebvre A, Munro I. The role of psychiatry in a craniofacial team. *Plast Reconstr Surg* 1978; **6**: 564–69.
18. Clifford E. Psychologist in a plastic surgery service. *Ann Plast Surg* 1982; **8**: 79–82.
19. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand* 1983; **67**: 361–70.
20. Phillips KA, McElroy SL, Keck PE Jr, Pope HG Jr, Hudson JI. Body dysmorphic disorder: 30 cases of imagined ugliness. *Am J Psychiatry* 1993; **150**: 302–08.
21. Sarwer DB, Crerand CE, Didie ER. Body dysmorphic disorder in cosmetic surgery patients. *Facial Plast Surg* 2003; **19**: 7–18.
22. NICE Guidelines. Obsessive Compulsive Disorder: Core interventions in the treatment of obsessive compulsive disorder and body dysmorphic disorder. November 2005. <http://www.nice.org.uk>
23. Honigman RJ, Phillips KA, Castle DJ. A review of psychosocial outcomes for patients seeking cosmetic surgery. *Plast Reconstr Surg* 2004; **113**: 1229–37.
24. Feinmann C, Cunningham SJ. Psychological aspects of facial deformity. Ward Booth P, Schendel SA, Hausamen J (Eds). *Maxillofacial Surgery* Vol. 2. Churchill Livingstone 1999. pp. 849–61.
25. Cunningham SJ, Garratt AM, Hunt NP. Development of a condition-specific quality of life measure for patients with dentofacial deformity: I. Reliability of the instrument. *Community Dent Oral Epidemiol* 2000; **28**: 195–201.
26. Cunningham SJ, Garratt AM, Hunt NP. Development of a condition-specific quality of life measure for patients with dentofacial deformity: II. Validity and responsiveness testing. *Community Dent Oral Epidemiol* 2002; **30**: 81–90.

Appendix 1

Questionnaire

1. Approximately what proportion of orthognathic patients in your unit do you think would benefit from psychological or psychiatric referral?

- 100%
- 75%
- 50%
- 25%
- 10%
- None
- Don't know

2. Approximately what proportion of orthognathic patients do you refer for psychological assessment/management?

- 100%
- 75%
- 50%
- 25%
- 10%
- None – **please go straight to Question 5**

3. Please tick the reasons you refer patients? And then rank those reasons you have ticked in priority order: 1,2, etc. (with 1 being the most important).

Tick	Rank
<input type="checkbox"/>	<input type="checkbox"/> No significant clinical problem
<input type="checkbox"/>	<input type="checkbox"/> Past/current psychiatric history
<input type="checkbox"/>	<input type="checkbox"/> 2nd/3rd opinion
<input type="checkbox"/>	<input type="checkbox"/> numerous previous consultations
<input type="checkbox"/>	<input type="checkbox"/> unrealistic expectations – please give examples below

<input type="checkbox"/>	<input type="checkbox"/> very recent concern
<input type="checkbox"/>	<input type="checkbox"/> older patient
<input type="checkbox"/>	<input type="checkbox"/> gut instinct
<input type="checkbox"/>	<input type="checkbox"/> problems with orthognathic patients before
<input type="checkbox"/>	<input type="checkbox"/> previous facial surgery
<input type="checkbox"/>	<input type="checkbox"/> family pressure/opposition
<input type="checkbox"/>	<input type="checkbox"/> other (please specify below)

4. When in the treatment process do you most commonly refer?

- Pre-treatment
- During pre-surgical orthodontics
- Post surgery
- Post (completion of) treatment

5. What stops you referring?

- Too much time involved
- Cost of referral
- Nobody to refer to
- Not sure who to refer to
- Waiting list to refer too long
- Response from mental health team not useful
- Fear of patient reacting badly or refusing to see psychologist
- Other (please specify below)

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6. Do you use any psychological questionnaires at initial assessment?

- Yes (please specify below)

.....

- No

7. Have you ever had any teaching in psychological assessment and management?

- Yes, as an undergraduate (please specify the format of this teaching)

.....

- Yes, as a postgraduate (please specify the format of this teaching)

.....

- No

8. Would you feel you would benefit from training in this field?

- Yes
- No

Please add any comments which you think may be useful:

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