

Paediatric diabetes services in England since the introduction of the Best Practice Tariff: A national survey of clinical psychologists' time, roles and ways of working. Part 1

Catherine J Binney, Natalie Roswess-Bruce

The introduction of the Best Practice Tariff (BPT) has led to an increase in psychological provision within paediatric diabetes services (PDSs), but variation has been noted. This article summarises findings from a national survey to which 43 clinical psychologists working in PDSs across England responded. Respondents were based most commonly in paediatric psychology departments. Descriptive data on capacity (whole-time equivalent), administrative and assistant psychology support, clinic sites and patient populations are presented. Additionally, common approaches to the BPT criterion stating that children and young people should receive annual assessment by their multidisciplinary team “as to whether input to their care by a clinical psychologist is needed” are summarised and discussed. It is suggested that variation in capacity and approaches to assessment perhaps reflect a flexible response to pertinent local factors. The information presented is intended to help inform local service planning and development while also encouraging more rigorous future data collection in collaboration with stakeholders and professional bodies, as services continue to develop.

In April 2012, the Best Practice Tariff (BPT) was implemented in England to ensure universal standards of care and improve outcomes for children and young people (CYP) living with type 1 diabetes. The BPT became mandatory in April 2013 and provided NHS trusts with the opportunity to invest in services in return for an annual payment per patient based on their ability to meet 14 criteria (Randell, 2012). Prior to this, PDS provision varied across the country. Although psychosocial factors have long been known to impact on treatment outcomes and quality of life (QoL) for CYP with type 1 diabetes (Chisholm et al, 2007), few services provided access to psychological support (Gosden et al, 2010; Kime and Carlin, 2012). The BPT attempted to address this, stating that CYP with diabetes should receive annual assessments on whether

input to their care by a clinical psychologist is needed, as well as access to psychological support, which should be integral to the team, as appropriate (Department of Health, 2013).

The introduction of the BPT has led to an increase in the number of diabetes teams introducing psychology services within PDSs in England. The literature highlights a range of methods for assessing diabetes-related mental health (Snoek et al, 2000), QoL (Varni et al, 2003; Nansel et al, 2008) and interventions and approaches to care (Winkley et al, 2006; Løding et al, 2007). This allows flexibility for services within the general guidelines of the BPT, which can be helpful in that it allows services to tailor support to local factors.

Peer-review programmes (e.g. the National Peer Review Programme and the West Midlands

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Article points

1. This article reports on the first national survey focusing specifically on psychological services in paediatric diabetes teams since the introduction of the Best Practice Tariff (BPT).
2. The data presented include whole-time equivalent figures on psychologists and methods used to assess whether input by a clinical psychologist to the care of children and young people with diabetes is useful.

Key words

- Annual psychological assessment
- Best Practice Tariff
- Clinical psychology
- Service development
- Whole-time equivalent data

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Page points

1. Past surveys, such as the Fifth Paediatric Diabetes Services Survey, evaluated changes in services with a focus on medical aspects of provision. Often, only limited information about psychological care was noted.
2. The aim of the study presented here was to survey clinical psychologists' time, roles and ways of working in paediatric diabetes services in England since the introduction of the Best Practice Tariff.

Quality Review Service) report variation in psychology provision in PDSs. This is perhaps accounted for, in part, by local needs and resources and the fact that provision may be informed by the psychological factors for which departments screen (Hall and Waldron, 2014). Diabetes teams and psychologists seeking to establish or develop local services, or to liaise with commissioners and managers, often enquire about whole-time equivalents (WTEs) through forums such as the Paediatric Psychology Network. However, there are many additional factors (e.g. clinic sites, geography, patient needs and socioeconomic factors) that determine psychologists' capacity to meet the demands of a service.

Past surveys, such as the Fifth Paediatric Diabetes Services Survey (Gosden et al, 2010), evaluated changes in services with a focus on medical aspects of provision. Often, only limited information about psychological care was noted (Gosden et al, 2010; Kime and Carlin, 2012). The National Paediatric Diabetes Audit (NPDA) could readdress this, but it currently just monitors whether CYP with diabetes have been referred to and seen by child and adolescent mental health services (CAMHS) or psychological support services, and the data collected have been reported to be of poor quality (Royal College of Paediatrics and Child Health, 2015). Martin et al (2008) looked at the role of a clinical psychologist contributing to a specific PDS and provided insight into the referral process, appointments and psychological interventions. It is now timely, after the introduction of the BPT, to begin to establish a national picture.

The aim of the study presented here was to survey clinical psychologists' time, roles and ways of working in PDSs in England since the introduction of the BPT. This article summarises and discusses responses in relation to service background and assessment aspects. We plan to submit a follow-up piece on other areas covered in the survey (referrals, service provision, management, meetings, consultation, training, supervision and challenges).

Methods

We designed a questionnaire comprising 46 questions (a mixture of open format and

closed format) on the roles and responsibilities of a psychologist contributing to a PDS. Recommendations for PDS psychology provision from NICE (2004) and from the International Society for Pediatric and Adolescent Diabetes and International Diabetes Federation (2011) were also considered. The draft questionnaire was reviewed by the Regional Coordinator and the Chair and Clinical Lead (both consultants in paediatric endocrinology and diabetes) for the Paediatric Diabetes Network (PDN). The questionnaire was also piloted with two clinical psychologists working in PDSs and amendments were made in response to feedback.

The questionnaire was distributed in an email to prospective respondents together with an information sheet, via the six regional PDN coordinators and the Paediatric Psychology Network listserv (Paediatric Psychology Network, 2014). An opt-in design was employed where respondents choosing to participate completed the questionnaire and returned it by email or post. Respondents were given a period of 1 month to complete and return the questionnaire and a reminder email was sent a week before the deadline. Data were collected between July and August 2014.

Data analysis

A total of 43 questionnaires were returned and included in the analysis. It is only possible to provide an approximation of a response rate since there is no routine national data collection at this time regarding the number of psychologists employed in the 168 paediatric diabetes units across England. Information from peer-reviewed reports from October 2013 to July 2014 (personal communication with the Paediatric Diabetes Regional Coordinator) refers to 120 psychologists working in PDSs in England. For those units not represented in this data set (up to another possible 26), assuming one psychologist per unit would provide a maximum estimate of 146 psychologists in England working in PDSs at the time of the survey. This information leads to an estimate that the response rate lies between 30% and 36%. Arguably, one psychologist could be working across more than one unit or trust, with trusts potentially using split posts in order

to assist recruitment (Kershaw and Atkins, 2015). With this in mind, the response rate could in fact be towards the higher end of the estimated range.

Responses were assessed and analysed individually on a question-by-question basis, firstly for a response and then for whether that response could be interpreted clearly within the context of the question. The survey was comprehensive, but owing to space constraints and difficulty interpreting some responses, not all data are reported in the results sections. All figures are given to 1 decimal place.

Some data have been grouped by PDN regions, in order to maintain the anonymity of respondents and services. Some questions employed “check all that apply” responses and percentages reflect this, where noted.

Results

All respondents were clinical psychologists working in PDSs. As shown in *Table 1*, over half were based in paediatric psychology departments. Some psychologists reported that they worked across two services, (e.g. CAMHS and paediatric psychology) or were contracted to a PDS from another service, such as CAMHS, via a service level agreement.

Table 1. Percentage of respondents by department (total respondents, 43).

Department	Percentage of respondents (n)
Paediatric psychology service	53.5% (23)
Paediatric diabetes service	23.3% (10)
Child and adolescent mental health service (including liaison)	16.3% (7)
Health psychology	7.0% (3)

Page points

1. All respondents were clinical psychologists working in paediatric diabetes services (PDSs).
2. Over half were based in paediatric psychology departments.
3. Some psychologists reported that they worked across two services or were contracted to a PDS from another service via a service level agreement.

Some key findings from the survey are presented in *Figures 1* and *2*. National mean averages are shown by a red line. Across all psychologists who responded ($n=40$), a mean patient population of 232.2 CYP with diabetes was reported (range, 80–500). Also reported was a mean number of clinic sites covered per psychologist within PDSs of 2.08 (range, 1–5; $n=39$; *Figure 1*) and a mean WTE per 100 patients of 0.23 (range, 0.04–0.59; $n=40$; *Figure 2*), again taking all responses into account across England. Additional time from assistant

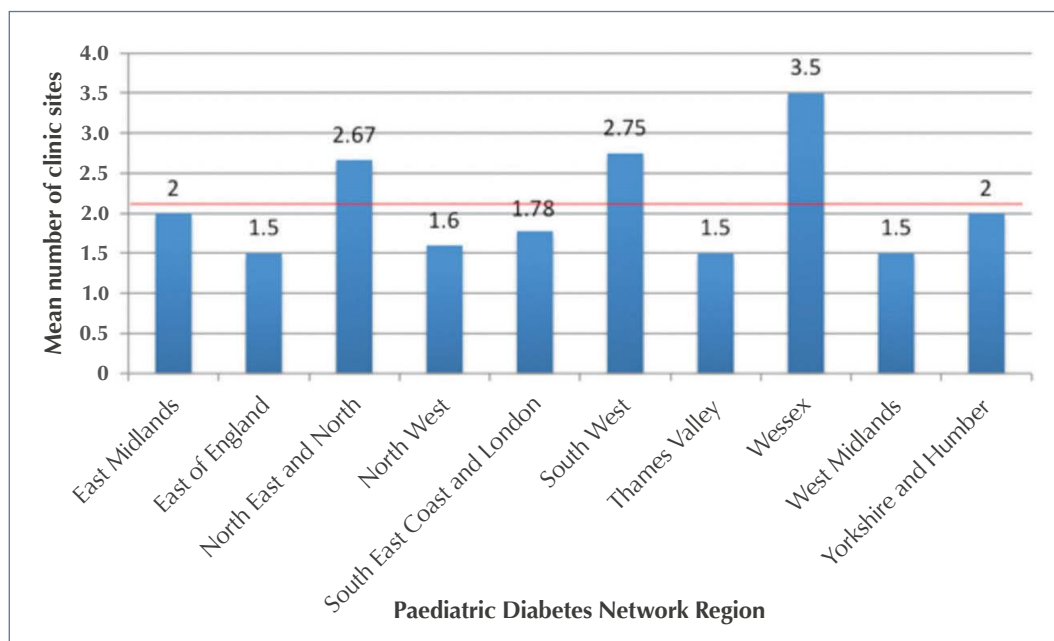


Figure 1. Mean number of clinic sites covered per psychologist (n=39), shown by region. The red line represents the national mean (2.08).

“The level of administrative support that respondents received varied considerably.”

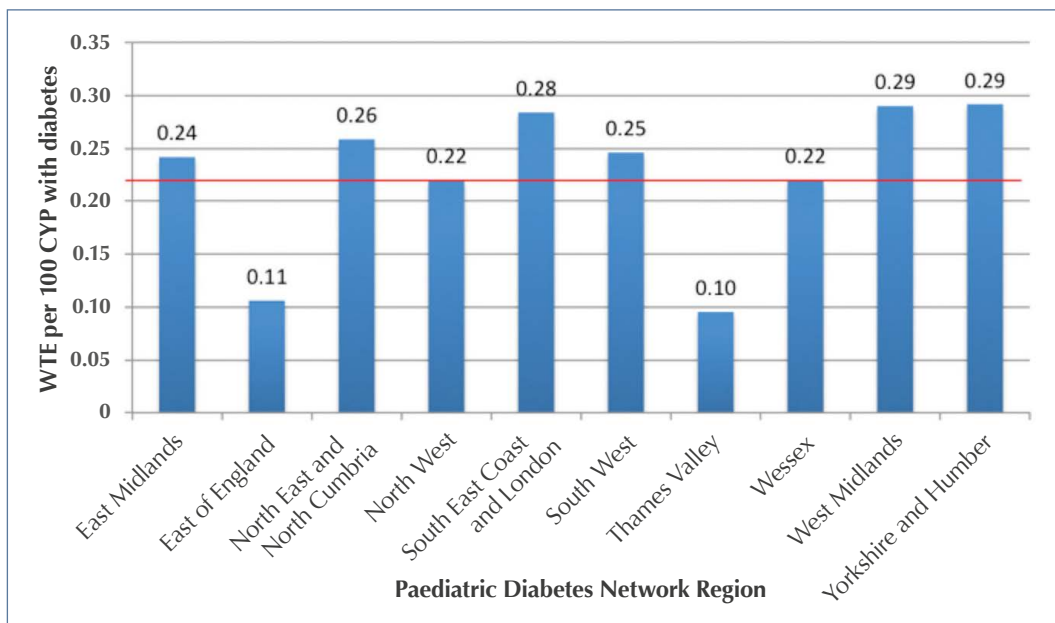


Figure 2. Whole-time equivalents (WTE) of qualified clinical psychologists (n=40) per 100 children and young people (CYP) with diabetes, by region. The red line represents the national mean (0.23).

psychologists was not included in these figures since assistant time supports the work of qualified clinical psychologists and only 15% of respondents (n=40) noted having assistant psychology time in their PDS (totalling 1.7 WTE nationally). Of the six posts, five were on a voluntary, unpaid basis.

The level of administrative support that respondents received varied considerably (n=40): 22.5% specifically stated they had no administrative support; 47.5% provided

quantifiable amounts of administrative support, ranging from 1–2 hours to 22.5 hours per week; and 30.0% of respondents reported having some sort of provision but were unsure of the amount or stated that this was undefined.

Table 2 shows when screenings (as to whether input from a clinical psychologist was needed) took place. For those not taking place during annual review clinics, respondents often commented that this was because annual review clinics were very busy. Table 3 shows which

Table 2. Occasions when screening tools were administered (total cases, 48; a “check all that apply” question).

Occasion	Percentage of cases (n)
Annual review clinic	68.8% (33)
Psychology appointment	10.4% (5)
Non-annual review clinic or any appointment (including home visits)	8.3% (4)
When need identified	6.3% (3)
At diagnosis	6.3% (3)

Table 3. Members of the multidisciplinary team administering screening tools to patients (total cases, 57; a “check all that apply” question).

Multidisciplinary team member	Percentage of cases (n)
Paediatric diabetes specialist nurse	42.1% (24)
Psychologist	29.8% (17)
Consultant paediatrician	14.0% (8)
Other staff	14.0% (8)

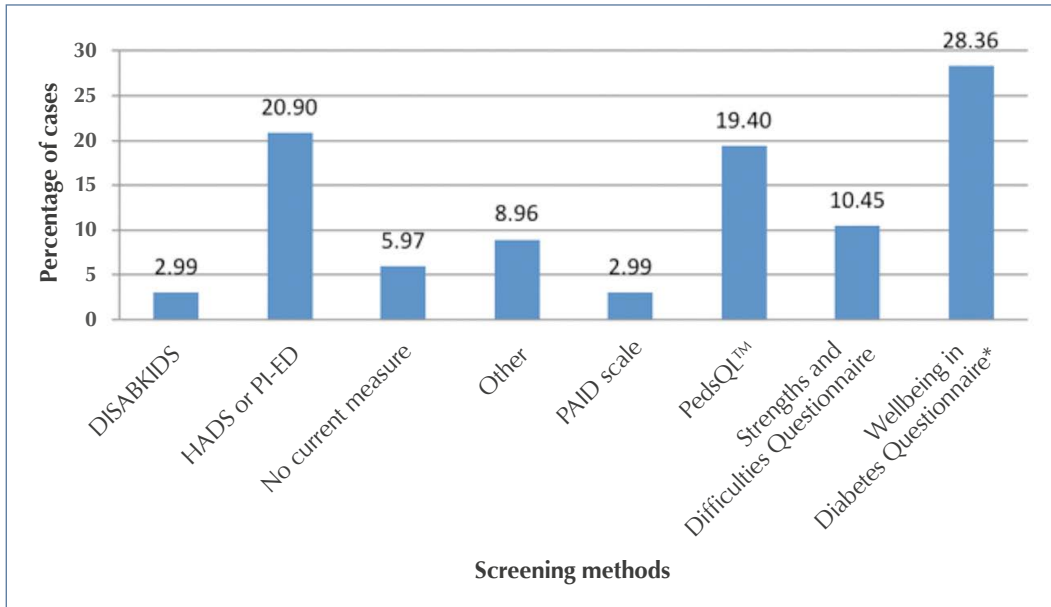


Figure 3. Screening and assessment methods used to assess whether the input of a clinical psychologist is needed (total number of cases, 67; a “check all that apply” question). *Yorkshire and Humber Special Interest Group. HADS=Hospital Anxiety And Depression Scale; PAID=Problem Areas in Diabetes; PedsQL™=Pediatric Quality of Life Inventory™; PI-ED=Paediatric Index of Emotional Distress.

members of the multidisciplinary team (MDT) carried out screenings. It was psychologists who most frequently interpreted the information gained from the screening (total cases, 43; 90.7%), although this was also often reported as occurring collaboratively at MDT meetings. A few respondents also reported that paediatric diabetes specialist nurses (7.0%) and consultant paediatricians (2.3%) interpreted screening data. Data on the screening and assessment methods employed to assess whether the input of a clinical psychologist is needed are shown in Figure 3,

while the way in which screening information was used is provided in Table 4.

Boxes 1 and 2 summarise the main findings, as described in detail above.

Discussion

This is the first formal survey since the introduction of the BPT to ask psychologists contributing to PDSs about their role and ways of working. Findings revealed that psychologists contributing to PDSs have diverse and varied roles and encounter some challenges, which, as mentioned in the introduction, we plan to submit a follow-up piece on.

Service background

Variation in department base for psychologists perhaps reflects the pre-existing local organisational structures when the integration of psychology into the PDS took place. Using existing service structures (where available) has the potential to capitalise on skills, experience and infrastructure. This can arguably provide efficient and cost-effective psychological support to CYP with diabetes and their families. Given that many posts were part time, this may also allow the combining of different roles in order to attract applicants to posts and aid recruitment.

Table 4. Use of screening information (total cases, 49; a “check all that apply” question).

Use of screening information	Percentage of cases (n)
For assessment and referral to psychologist	71.4% (35)
Formulation or evaluation of ongoing support	12.2% (6)
Service development and audit	16.3% (8)

Page points

1. This is the first formal survey since the introduction of the Best Practice Tariff to ask psychologists contributing to paediatric diabetes services (PDSs) about their role and ways of working.
2. Findings revealed that psychologists contributing to PDSs have diverse and varied roles and encounter some challenges.

Box 1. Summary of main service background results.

- All respondents were clinical psychologists working with paediatric diabetes services
- Just over half of psychologists were based in paediatric psychology departments
- The mean number of clinic sites covered per psychologist was 2.08 (range, 1–5)
- The mean qualified clinical psychology time, among all respondents nationally, was 0.23 whole-time equivalents per 100 children and young people with diabetes (range, 0.04–0.59)
- The mean patient population of children and young people with diabetes was 232.2 (range, 80–500)
- 22.5% of psychologists had no administrative support; 47.5% had access to administrative support, but the amount varied considerably

Box 2. Summary of main psychological assessment and screening results.

- The top three methods used to assess the need for input from psychology are: the Wellbeing in Diabetes Questionnaire (Yorkshire and Humber Special Interest Group); the Hospital Anxiety And Depression Scale or Paediatric Index of Emotional Distress; and the Pediatric Quality of Life Inventory™ (a notable proportion also mentioned using semi-structured interviews or clinical discussion)
- Screening tools were mostly administered at annual review clinics by different members of the multidisciplinary team
- The information, generally interpreted by the psychologist in the department, was mostly used for assessment and referral to psychology

Psychology resource varied considerably between services, ranging from 0.04 to 0.59 WTE per 100 CYP with diabetes. Although current results are difficult to contrast directly with the finding of Gosden (2010) that only 21% of PDSs had integrated psychology, it does appear that there has been a marked increase in WTE psychology time, as might be expected following the introduction of the BPT. However, it is important to highlight that results in the current study are based only on those who responded to the survey and therefore do not include services with no psychology input. This could potentially inflate WTE figures. It did not seem to follow that WTE numbers were higher for regions where more clinic sites were covered by psychology on average, as may have been predicted. However, as figures reflect fairly small numbers of services contributing to each region, one service's high or low figures have the potential to skew the average for that region.

The average WTE of qualified clinical psychology time nationally (0.23 WTE per 100 CYP with diabetes) is in line with the recommendation for psychologists providing

a “moderate” service (i.e. 0.2 WTE per 100 individuals) to CYP with diabetes outlined in the SWEET report (SWEET Project, 2010). Yet, it is important to note that this report and the Gosden (2010) survey were both published prior to the introduction of the BPT. When contemplating recommendations regarding WTE provision, it may be appropriate to also consider figures from the current survey as a more recent starting point, alongside other BPT criteria and local needs and resources.

Other factors than can potentially enhance the capacity of clinical psychologists, such as assistant psychologist time and administrative support, were shown to vary considerably between services. Few respondents reported having assistant psychology posts and nearly all of those who did described them as unpaid or voluntary posts. Not only did administrative support vary greatly, but over a fifth of those psychologists who responded reported no administrative support at all.

Assessment and screening

The variety of views regarding how to screen or assess CYP with diabetes for possible psychology support (Gelfand et al, 2004; Hall and Waldron, 2014) was reflected in the diversity of methods cited by respondents, many of whom reported using multiple forms of screening (such as standardised measures, semi-structured interviewing and clinical discussion). This range may reflect the different contexts and constraints on psychologists and PDSs (e.g. capacity, clinic sites, patient population, referral case-load and other responsibilities). Also of note here is the point that standardised measures should not be assumed to be the only valid method for effective screening. Christie (2014) argues that annual screening (as mandated by the BPT) does not on its own represent “timely and ongoing access to mental health professionals” (NICE, 2004). Christie comments that screening should take the form of regular clinical discussion with CYP with diabetes through routine contact with all members of the MDT so that any input from psychology is beneficial (see Hall and Waldron [2014] for a review of issues relating to psychological assessment in CYP with diabetes). This collaborative MDT working to consider

psychosocial need was reflected in the finding that a variety of staff administered screening tools.

Hall and Waldron (2014) promote the notion that assessment should be purposeful so as to inform appropriate and effective interventions for CYP with diabetes. Decisions about methods of psychological assessment need to take into account the parameters of the psychologist and the PDS setting, as well as ways in which other members of the MDT can input into the psychological care of CYP with diabetes. This approach can then: promote targeted, evidence-based approaches to care; further embed psychologically minded thinking into the MDT (Jacobs et al, 2012); and prevent screening from becoming merely a “tick-box exercise” for the benefit of achieving the BPT.

Limitations and future directions

This preliminary, descriptive survey provides novel insight into how psychologists are inputting to PDSs nationally and is the first to attempt to collate this kind of information at a national level. The survey perhaps appeared relatively long (trials showed it took around 15 minutes to complete). However, the design was an attempt to balance the time required to complete the questionnaire (a factor shown to influence response rate; Penwarden, 2013), with the desire to maximise the opportunity to gain significant and useful information. It was considered that follow-up surveys could induce “survey-fatigue”. The survey appeared to be well received, with numerous respondents, upon returning their completed questionnaires, commenting on the timeliness and helpfulness in collating the information.

Results were based solely on the data received from those responding to the survey; therefore, WTE figures did not include PDSs without any psychology provision. Moreover, the response set was potentially biased since the survey was optional. Typical response rates for email surveys are affected by many factors and are hard to establish, but they average just under 25% (Penwarden, 2014). We attempted to gauge a response rate for the present survey (approximated at 30–36%). This proved extremely difficult owing to the lack of availability of nationally collected data pertaining to integrated psychology services

within PDSs. This, in itself, can be taken to reinforce the usefulness of the preliminary survey.

The results gained from this survey probably in part reflect the subjective quality of opinions, the way in which questions were interpreted and the nature of the respondents. Reliability and validity of the research may have been influenced by such factors, and perhaps further piloting of the questionnaire may have reduced some issues. Clarification of responses through follow-up questioning or focus groups could have been useful and would also have allowed further insight, yet this was not possible with the time and resources available. Validity was also possibly affected by the data available to respondents (especially in recently established psychology services).

The current findings reflect a “snapshot” in time. Several respondents commented on the “newness” of their posts, although this was not specifically addressed in a question. The number of psychologists contributing to PDSs across the country is ever-increasing as services adapt to meet the updated BPT criteria. Information is typically submitted to commissioners regarding services' ability to meet these criteria and the NPDA currently collects limited information on referrals to CAMHS and psychological support services. Routine, national data collection could be further enhanced to provide a comprehensive picture of how psychological, as well as physical, healthcare provided by PDSs is developing annually. It is recommended that future work aimed at “fact finding” with regard to psychological provision within PDSs clearly asks psychologists for exact data and excludes instances where such data are unavailable or not provided, thus creating a more accurate picture. Extensive discussion about what information is to be collected and why – among relevant stakeholders – would help ensure this remained a useful exercise. While there is a desire to develop evidence-based minimum standards of care for psychology within PDSs, it is suggested that this should be led by psychologists through the British Psychological Society (BPS) or Paediatric Psychology Network in partnership with the PDN, commissioners and managers. This would help to ensure the development of psychologically

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2. The survey appeared to be well received, with numerous respondents, upon returning their completed questionnaires, commenting on the timeliness and helpfulness in collating the information.
3. Routine, national data collection could be further enhanced to provide a comprehensive picture of how psychological, as well as physical, healthcare provided by PDSs is developing annually.
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appropriate service-related outcomes that were informed by clinically relevant evidence and that accommodated local context.

Conclusion

This survey highlights the diverse and varied roles of clinical psychologists contributing to PDSs. The article demonstrates the variation that exists in capacity, shown by WTE data and influenced by factors such as administrative and assistant psychologist support as well as the number of clinic bases and the patient population. There is also variation regarding approaches to assessing psychological need, which is perhaps the result of psychologists responding in a flexible way to local factors. We do not intend for this information to be used to prescribe standards or protocols in relation to psychological provision within PDSs. Rather, the aim was to provide meaningful insight into progress in the limited time since the introduction of the BPT so as to facilitate service planning, development and evaluation of psychology input to PDSs at a local level. It is suggested that further, more rigorous data should be collected in collaboration with stakeholders and professional bodies, as services continue to develop. ■

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