

# Original Article: Education and psychological aspects

## Communication skills of healthcare professionals in paediatric diabetes services

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### Abstract

**Aims** To identify training needs in communication skills and to assess training preferences of staff working in paediatric diabetes services, which will inform the development of a learning programme in behaviour change counselling for healthcare professionals.

**Methods** Three hundred and eighty-five staff in 67 UK paediatric diabetes services were sent questionnaires to determine their previous communication skills training, to measure their self-reported view of the importance of and confidence in addressing common clinical problems and to assess the perceived feasibility of training methods to improve skilfulness.

**Results** Two hundred and sixty-six questionnaires (69%) were returned from 65 services. Sixteen per cent of doctors, nurses and dietitians reported no previous training in communication skills and 47% had received no training since graduating. Respondents rated psychosocial issues as more important to address than medical issues within consultations ( $t = 8.93$ ,  $P < 0.001$ ), but felt less confident addressing such issues ( $t = 15.85$ ,  $P < 0.001$ ). One-day workshops and monthly team meetings were the most popular of the training options considered (65% and 77%, respectively). CD ROM and web-based learning were considered feasible for 54% and 56% of respondents, respectively, although lack of time (55%) and privacy (34%) were potential barriers.

**Conclusions** Addressing psychosocial issues is an important component of consultations involving young people with diabetes, but healthcare professionals find it easier to address medical issues. This represents a key training need in communication skills for diabetes professionals. The survey will inform the development of a tailored learning programme for health professionals in UK paediatric diabetes clinics.

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**Keywords** communication skills, diabetes, health-care professionals, paediatrics, training needs

**Abbreviations** DEPICTED, Development and Evaluation of a Psychosocial Intervention for Children and Teenagers Experiencing Diabetes; HbA<sub>1c</sub>, glycated haemoglobin; ICC, intraclass correlation coefficient

### Introduction

Helping younger patients and their families manage their diabetes effectively represents an important challenge for healthcare professionals. Amongst the range of psychosocial interventions assessed for optimizing glycaemic control in adolescents, no one approach is most clearly effective [1]. However, approaches that emphasize practitioner

communication skilfulness offer great potential for behaviour change in clinical practice in general, and in paediatric diabetes in particular [2,3]. More broadly, good communication between healthcare professionals and patients can optimize delivery of care and enhance patient outcomes [4–6].

For children and teenagers with Type 1 diabetes where management is complex and disease outcomes are influenced by physical, social and psychological factors [7], consultations are further complicated by family dynamics and developmental issues. Members of paediatric diabetes teams may be required to manage their patients with limited support from psychology services [8,9]. In the UK, notable attempts to

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train health professionals in communication skills have occurred in specialties such as oncology and general practice and have met with mixed success [10–13]. However, there is little published evidence regarding the acquisition and proficiency of communication skills of healthcare professionals in paediatric disciplines. Staff involved in the management of child and adolescent obesity in the USA have reported low levels of self-perceived proficiency in the use of behavioural management strategies, delivering guidance in parenting strategies and in addressing family conflict [14]. This suggests additional training would be beneficial in improving confidence and skills in these areas. The attitudes and experience of professionals in the UK in communicating with children and teenagers with diabetes and their families are unknown. The Development and Evaluation of a Psychosocial Intervention for Children and Teenagers Experiencing Diabetes (DEPICTED) Study is developing a professional training programme addressing communication in routine consultations with children with Type 1 diabetes to facilitate patient behaviour change. The programme will be assessed within a randomized controlled trial involving 26 diabetes teams and 700 children and teenagers across the UK. This survey aimed to assess communication experiences and attitudes and training opportunities for healthcare professionals to inform the development of the programme.

Blended learning approaches which provide a mixture of learning opportunities have been effective in delivering communication skills programmes [10,15–17]. More recent technological advances, such as CD-ROM and web-based programmes provide a flexible method of education delivery and have been used with some success to teach clinical communication skills [18]. However, such technologies have not been assessed on a large scale in a multidisciplinary clinical environment in the UK and their potential acceptability to paediatric clinical staff is unknown. Despite obvious advantages, such as the potential to reach large numbers of learners, barriers to the use of e-learning in continuing professional development, such as lack of time and confidence, may restrict such developments [19,20]. However, the use of technology by health professionals in everyday practice is rapidly developing. It is possible that such problems may have been resolved and preferences for training may have moved to embrace such approaches. Therefore, this study also aimed to assess the perceived feasibility of and preferences for various methods of learning amongst staff working in paediatric diabetes services.

## Methods

### Sample

In April 2006, consultants from 67 paediatric diabetes services were asked to distribute questionnaires for completion by all doctors, nurses, dietitians, psychologists and other health professionals working in their paediatric diabetes teams. These

consultants had previously taken part in a telephone survey in which 112 paediatric diabetes services, approximately half of services in the UK [21], were randomly selected from the Directory of Diabetes Care [22]. Lead consultants for the services were clarified by telephone contact with listed services and approached to participate. Sixty-seven consultants who had expressed an interest in taking part in the previous survey also agreed to be contacted in relation to this postal survey. Questionnaires were distributed to 385 professionals in total, including 150 doctors, 124 nurses, 77 dietitians and 32 psychologists or therapists.

### Questionnaire

The survey covered three broad areas: (i) previous experience in communication skills training and its delivery; (ii) a scenario-based assessment of attitudes towards addressing different topics in routine consultations; (iii) perceived feasibility of different options for training delivery and skill maintenance. The overall content domain and individual items were developed by a research team comprising psychologists, communication skills trainers and clinical practitioners in paediatric diabetes, amongst others, and piloted with 11 practitioners working in two paediatric diabetes centres in South Wales. Consultants' responses to a previous telephone survey of psychosocial service provision for children with diabetes also contributed to the content of the questionnaire.

### Scenario-based assessments

To represent commonly encountered challenges within routine paediatric and adolescent diabetes practice, three clinical case scenarios were constructed for use in the questionnaire. Each scenario was constructed to contain clinically relevant medical and psychosocial topics [e.g. elevated glycated haemoglobin (HbA<sub>1c</sub>), health-threatening behaviour] each of which then formed the basis of subsequent questions (see Appendix). Respondents were asked to rate the importance they gave to addressing that topic within the consultation and their confidence in addressing it. Respondents used a rating scale from 1 to 5, where a score of 1 represented 'not at all important/confident' and 5 represented 'very important/confident'. These importance and confidence ratings were developed on the basis of behaviour change theory [23] with an aim to identify areas of training need and clinicians' motivation to learn new skills. Scores across the three scenarios were combined to form aggregate 'importance' and 'confidence' summary scores for both 'psychosocial' and 'medical' topics. Internal consistency of the summary scores was assessed using Cronbach's alpha.

Respondents were asked to rate the feasibility of a variety of possible training options on a scale of 1–5, where 1 represented 'not at all feasible' and 5 'very feasible'. Options included more traditional training, such as off-site workshops, as well as the applications of newer technology such as Internet 'chat rooms'.

### Follow-up procedure

If a questionnaire had not been received back from a centre within 3 weeks of distribution, the consultant was followed up by telephone to establish whether the questionnaires had been received, whether any further questionnaires were required and to encourage distribution and completion.

### Data analysis

Data are presented as frequencies, means and medians. Differences in responses to scenarios were analysed using Student's *t*-tests and ANOVA. Standard deviations were adjusted to account for clustering of responses within services through inflation by the intraclass correlation coefficient (ICC) [24]. Responses from services with just one team member in the sample were excluded from analyses of scenario responses to minimize distortion of the ICC ( $n = 11$ ). Associations between variables were examined by calculating Pearson's coefficient. For analyses of responses to all questions on previous experience of training in communication skills and the case scenarios, psychologists and other therapists were excluded from the analysis ( $n = 14$ ). All data were analysed using SPSS (version 14.0; SPSS Inc, Chicago, IL, USA).

## Results

### Survey sample

Two hundred and sixty-six completed questionnaires were received from 65 services, a response rate of 69.1%. Respondents included consultants, doctors in specialist training, dietitians, specialist diabetes and paediatric nurses, psychologists, psychotherapists, counsellors and play therapists (Table 1). The majority of respondents were female (74.1%). Respondents' experience of working with children and teenagers with diabetes ranged from less than 1 to 44 years (median = 9 years).

### Previous training in communication skills

Almost one-quarter of nurses and 41 (16.4%) of all professionals had received no previous training in communication skills. One

hundred and fifty-four (61.6%) professionals received training as an undergraduate, 122 (48.8%) had received postgraduate training and 70 (28.0%) had received specialist training, with a minority of dietitians having received training in behaviour change counselling techniques, such as motivational interviewing (Table 2).

### Importance and confidence ratings for communicating with patients

The internal consistency of aggregate scores was high for 'confidence' ratings (medical issues:  $\alpha = 0.91$ ; psychosocial issues:  $\alpha = 0.83$ ) and reasonable for 'importance' ratings (medical issues:  $\alpha = 0.81$ ; psychosocial issues:  $\alpha = 0.69$ ). Internal consistency of aggregate scores was optimized by excluding those topics not falling exclusively into a 'medical' or 'psychosocial' category, such as a girl's weight.

For the case scenarios presented, respondents rated both 'medical' and 'psychosocial' issues as either important or very important to address during routine consultations (mean  $\pm$  standard deviation ratings =  $4.0 \pm 0.68$  and  $4.5 \pm 0.50$ , respectively). Psychosocial issues were given higher importance ratings to address within a routine consultation than medical issues ( $t = 8.93$ ,  $P < 0.001$ ). Confidence to address medical issues was high (mean rating =  $4.3 \pm 0.66$ ), particularly amongst doctors and nurses, but confidence to address psychosocial issues was significantly lower across all disciplines (mean =  $3.5 \pm 0.75$ ,  $t = 15.85$ ,  $P < 0.001$ , Fig. 1). The biggest discrepancy between importance ratings for a specific topic and confidence ratings related to the topic of a teenage girl's low mood (see Appendix for example case scenario). Other issues for which respondents rated as 'important' or 'very important', but had less confidence to address, included addressing the impact of parental conflict on a young girl and talking about a teenage girl's views of living with diabetes. Sixty-eight (27.0%) respondents said they would not consider addressing the impact of parental conflict on a young girl themselves (Table 3).

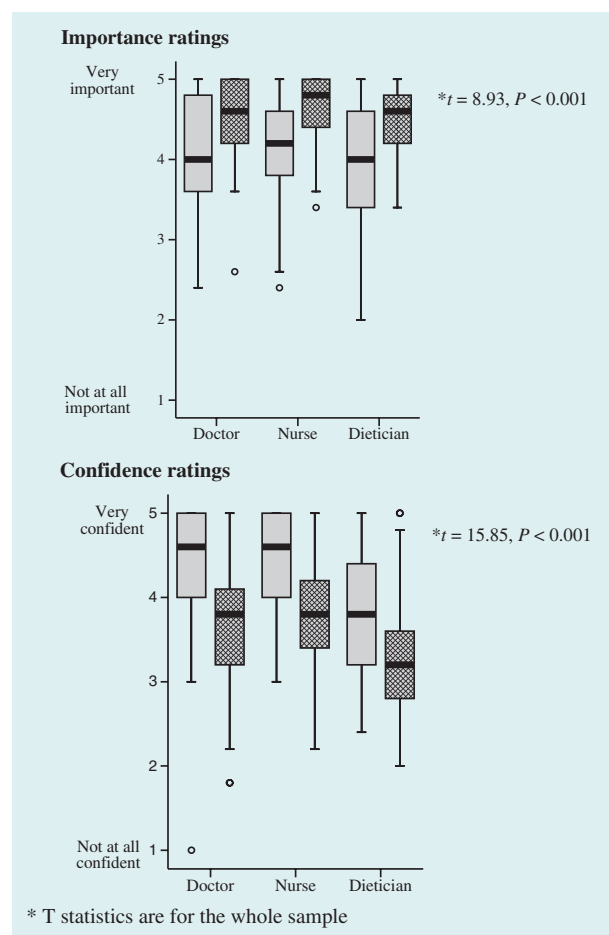
There were no inter-professional group differences in importance given to addressing psychosocial and medical topics within the consultation, but there were inter-professional differences in confidence, with dietitians expressing less confidence across all issues ( $F_{2,229} = 4.12$ ,  $P = 0.018$ , Fig. 1). Confidence ratings for addressing both medical and psychosocial issues were correlated with years of experience working in diabetes ( $r = 0.30$  and  $r = 0.36$ , respectively; both  $P < 0.001$ ). A weak correlation was found between importance ratings for addressing psychosocial issues and years experience working in diabetes ( $r = 0.15$ ,  $P = 0.026$ ). The correlation between importance ratings given to medical issues and years experience in diabetes was not significant ( $r = 0.13$ ,  $P = 0.059$ ). Those who had received specialist communication skills training, such as motivational interviewing and cognitive behavioural therapy, reported slightly higher mean confidence ratings for addressing psychosocial issues compared with those who had not received any form of specialist training (mean = 3.8 and 3.6,

**Table 1** Sample by profession

|                              | <i>n</i> | %    | Median years experience in paediatric diabetes |
|------------------------------|----------|------|------------------------------------------------|
| Doctor                       | 109      | 41.0 | 10                                             |
| Nurse                        | 91       | 34.2 | 11                                             |
| Dietitian                    | 50       | 18.7 | 5                                              |
| Psychology/other (therapist) | 14       | 5.3  | 4                                              |
| Not reported                 | 2        | 0.8  |                                                |
| Total                        | 266      | 100  | 9                                              |

**Table 2** Previous training in communication skills

| Professional group | No training (%) | Undergraduate training (%) | Postgraduate training (%) | Training in specialist communication skills (%) |                           |                               |                |                   |
|--------------------|-----------------|----------------------------|---------------------------|-------------------------------------------------|---------------------------|-------------------------------|----------------|-------------------|
|                    |                 |                            |                           | Diabetes specific                               | Motivational interviewing | Cognitive behavioural therapy | Family therapy | Other counselling |
| Doctor             | 15.5            | 53.2                       | 67.9                      | 14.0                                            | 4.5                       | 0                             | 1.9            | 4.7               |
| Nurse              | 23.1            | 57.1                       | 27.5                      | 20.4                                            | 12.1                      | 0                             | 3.4            | 11.4              |
| Dietitian          | 6.0             | 88.0                       | 46.0                      | 6.0                                             | 28.0                      | 6.0                           | 0              | 6.0               |
| All groups         | 16.4            | 61.6                       | 48.8                      | 14.6                                            | 12.0                      | 1.2                           | 2.0            | 7.3               |

**FIGURE 1** Importance and confidence ratings (medical and psychosocial issues). Medical issues (□); psychosocial issues (▨); outlier (○); \**t*-statistics are for the whole sample.

respectively). However, this difference was not statistically significant ( $t = 1.6, P = 0.103$ ). No other relationships were found between attitudes about addressing psychosocial issues and previous communication skills training. There was some clustering of importance and confidence ratings within services, particularly for confidence ratings to address psychosocial issues ( $ICC = 0.08$ ), indicating a tendency for members of the same team to self-rate in similar fashion. The same was true for importance ratings given to medical issues ( $ICC = 0.04$ ).

Motivating factors for participating in a communication skills learning programme included helping patients talk about their needs more easily, helping to change patient behaviour and learning skills that can be used in life beyond diabetes care (80.0%, 79.2% and 72.8% of respondents agreed with these statements). As a reason for participation, 19.6% of respondents expressed 'finding talking with patients sometimes quite difficult'. Agreement with this statement was correlated with less years experience working in diabetes ( $r = 0.15, P = 0.016$ ).

### Training delivery

#### Face-to-face training

The most common formats for communication skills training previously experienced by respondents were small group discussions ( $n = 56, 21.0\%$ ), lectures ( $n = 19, 7.1\%$ ) and role play ( $n = 33, 12.4\%$ ). Respondents considered the most feasible options for training in communication skills to be meeting together as a team once a month for 30 min and attending a 1-day off-site workshop (Table 4). Attending a 3-day off-site workshop was rated unfeasible by 143 (54.1%) respondents.

#### Technology-based training

Nine respondents reported experience of learning with video and audio materials and just one respondent had interacted with web-based materials. However, 149 (56.4%) respondents rated engaging with materials on a website as a feasible training option. Perceived barriers to accessing web-based material at work included lack of time ( $n = 143, 55.4\%$ ), lack of privacy or a busy office ( $n = 87, 33.9\%$ ), inconvenient location ( $n = 47, 18.5\%$ ) and slow Internet connection ( $n = 31, 12.2\%$ ). Few respondents considered insufficient computer skills and lack of interest to be barriers to either web or CD-ROM learning ( $n = 14, 5.5\%$  and  $n = 6, 2.4\%$ , respectively). One hundred and seventy-eight (66.3%) respondents reported they would consider accessing web-based learning materials on their computer at home.

#### Practising skills

Discussing experiences with colleagues once a month and allowing an experienced coach or colleagues to observe and feedback on consultations were both rated as feasible options for encouraging skills in practice by most respondents. The least

**Table 3** Attitudes to addressing topics in scenarios of routine consultations

| Topics                                                           | % rating as either 'important' or 'very important' |      |        |       | Mean (SD*) important rating |  |           |       | % rating as either 'confident' or 'very confident' |      |        |            | Mean (SD*) confident rating |      |           |       | % stating they would not attempt to address topic themselves |  |        |       |           |
|------------------------------------------------------------------|----------------------------------------------------|------|--------|-------|-----------------------------|--|-----------|-------|----------------------------------------------------|------|--------|------------|-----------------------------|------|-----------|-------|--------------------------------------------------------------|--|--------|-------|-----------|
|                                                                  | All                                                |      | Doctor | Nurse | All                         |  | Dietitian | Nurse | All                                                |      | Doctor | Nurse      | All                         |      | Dietitian | Nurse | All                                                          |  | Doctor | Nurse | Dietitian |
|                                                                  |                                                    |      |        |       |                             |  |           |       |                                                    |      |        |            |                             |      |           |       |                                                              |  |        |       |           |
| A teenage girl's...<br>HbA <sub>1c</sub> result†                 | 75.2                                               | 78.0 | 72.5   | 74.0  | 4.1 (0.98)                  |  |           | 89.2  | 93.6                                               | 89.0 | 80.0   | 4.3 (0.77) | 1.2                         | 0.9  |           |       |                                                              |  |        |       |           |
| Insulin regimen†                                                 | 65.0                                               | 64.2 | 69.2   | 59.1  | 3.9 (1.03)                  |  |           | 80.0  | 93.6                                               | 86.8 | 80.0   | 4.1 (0.98) | 9.3                         | 1.9  |           |       |                                                              |  |        |       |           |
| Low mood‡                                                        | 95.6                                               | 98.1 | 97.8   | 85.7  | 4.7 (0.56)                  |  |           | 42.8  | 47.7                                               | 46.1 | 26.0   | 3.3 (1.10) | 14.9                        | 18.5 |           |       |                                                              |  |        |       |           |
| Views on life with diabetes‡                                     | 98.4                                               | 98.1 | 98.9   | 98.0  | 4.8 (0.46)                  |  |           | 66.8  | 69.7                                               | 76.9 | 42.0   | 3.7 (0.93) | 5.6                         | 2.7  |           |       |                                                              |  |        |       |           |
| A teenage boy's...<br>HbA <sub>1c</sub> result†                  | 70.1                                               | 72.6 | 72.5   | 62.0  | 4.0 (0.97)                  |  |           | 89.6  | 94.4                                               | 93.4 | 72.0   | 4.4 (0.80) | 1.6                         | 0.9  |           |       |                                                              |  |        |       |           |
| Insulin regimen (encouraging him to talk about)†                 | 81.9                                               | 85.0 | 85.7   | 70.0  | 4.3 (0.79)                  |  |           | 87.6  | 92.6                                               | 94.5 | 64.0   | 4.3 (0.78) | 2.4                         | 0.9  |           |       |                                                              |  |        |       |           |
| Life at school‡                                                  | 91.5                                               | 90.7 | 93.4   | 89.6  | 4.5 (0.69)                  |  |           | 77.5  | 72.2                                               | 89.0 | 68.0   | 4.0 (0.77) | 3.2                         | 3.7  |           |       |                                                              |  |        |       |           |
| Drinking behaviour‡                                              | 90.0                                               | 87.0 | 94.5   | 88.0  | 4.4 (0.69)                  |  |           | 69.9  | 63.8                                               | 81.3 | 62.0   | 3.9 (0.82) | 6.0                         | 9.3  |           |       |                                                              |  |        |       |           |
| A young girl's...<br>HbA <sub>1c</sub> result†                   | 76.5                                               | 80.5 | 79.8   | 62.0  | 4.0 (0.81)                  |  |           | 90.3  | 92.2                                               | 93.5 | 80.0   | 4.4 (0.80) | 0.8                         | 0.9  |           |       |                                                              |  |        |       |           |
| Parent's relationship conflict and its impact on the young girl‡ | 84.5                                               | 85.3 | 86.3   | 80.0  | 4.3 (0.79)                  |  |           | 37.8  | 43.5                                               | 38.2 | 24.5   | 3.2 (1.13) | 27.0                        | 25.9 |           |       |                                                              |  |        |       |           |

HbA<sub>1c</sub>, glycated haemoglobin; SD, standard deviation.

\*Standard deviations are adjusted to take account of clustering within services.

†Contributes to summary scores for 'medical' issues. Cronbach's alpha: confidence = 0.91; importance = 0.81.

‡Contributes to summary scores for 'psychosocial' issues'. Cronbach's alpha: confidence = 0.83; importance = 0.69.

**Table 4** Feasibility of training options

|                             | % rating feasible<br>(scored 4 or 5) | % rating unfeasible<br>(score 1 or 2) |
|-----------------------------|--------------------------------------|---------------------------------------|
| Team meeting once a month   | 77.3                                 | 6.9                                   |
| One-day off-site workshop   | 64.8                                 | 12.5                                  |
| CD-ROM                      | 53.6                                 | 16.7                                  |
| Website                     | 56.4                                 | 16.6                                  |
| Three-day off-site workshop | 17.5                                 | 54.1                                  |

**Table 5** Options for maintaining skills in practice

| Learning activities                                     | % rating feasible<br>(4 or 5) | % rating unfeasible<br>(1 or 2) |
|---------------------------------------------------------|-------------------------------|---------------------------------|
| Discussing experiences with                             |                               |                                 |
| Colleagues (once a month)                               | 65.5                          | 9.3                             |
| A visiting coach                                        | 62.2                          | 11.9                            |
| An experienced coach by e-mail                          | 53.4                          | 22.9                            |
| Other providers in a 1-day workshop                     | 44.3                          | 24.1                            |
| An experienced coach by telephone                       | 42.1                          | 36.3                            |
| Other providers in an Internet 'chat room'              | 17.0                          | 58.8                            |
| An experienced coach observing your consultations       | 65.2                          | 10.7                            |
| A colleague observing your consultations                | 65.0                          | 13.4                            |
| Audio recording a consultation to reflect on yourself   | 57.4                          | 20.5                            |
| Audio recording a consultation to share with a coach    | 57.8                          | 18.4                            |
| Audio recording a consultation to share with colleagues | 49.4                          | 20.3                            |
| Writing up reports of challenging consultations         | 46.0                          | 25.3                            |

feasible option was discussing experiences with other practitioners on the Internet, rated unfeasible by 154 (58.8%). Writing up reports of challenging consultations was rated unfeasible by one-quarter of respondents (Table 5).

## Discussion

Whilst some professionals have undertaken specialist training in communicating with patients, almost one-quarter of nurses have received no such training and half of all professionals surveyed have received no training since graduating. Confidence amongst doctors and nurses to address medical issues in consultations involving young people with diabetes was high, but confidence to address psychosocial issues was significantly lower. Given that addressing psychosocial needs is perceived as important by both patients [25] and professionals, these low confidence ratings reflect a training need and motivation to learn new skills amongst

professionals working in paediatric diabetes and a gap in current care provision.

It is clear that some practitioners feel unprepared to address psychosocial challenges which are commonly found in practice and it may be that some feel that it is outside their remit to do so. Referral to psychology services may be an answer for some patients with particularly pressing concerns, but access to such support is limited [8,9]. In many services, practitioners have little option but to address complex psychological and emotional topics themselves. The clustering of confidence and importance ratings found within individual services may be a reflection of differing 'cultures' and variations in the availability of specialist support. Establishing models of care to meet families' psychological and emotional needs which are applied across services is therefore a priority.

High importance ratings given to addressing psychosocial issues, coupled with low confidence ratings, suggests a role for communication skills education to support routine care. In addition, reasons given by practitioners for participating in a communication skills learning programme demonstrate the clinical challenge of behavioural self-management in diabetes and emphasize the perceived importance of effective communication between family and professional.

Amongst the strengths of this study was the development of the survey instrument by a team of clinical and research professionals with a particular interest in training, enhancing both the face and content validity of the final survey instrument. Furthermore, the scenario-based assessments were developed on the basis of clinical experience and conceptually driven. This was borne out by the high level of internal consistency for three of the four resulting aggregate scales, with scores exceeding the benchmark Cronbach's alpha of 0.7 [26]. Similarly, associations found with other related variables, such as the positive relationships between confidence ratings and years of experience in diabetes, support the construct validity of these measures. Potential weaknesses of the study include the response rate and coverage of the survey. The sample of respondents may be biased towards professionals who are interested in or seeking training in communication skills. Therefore, caution should be taken before suggesting that these findings represent the attitudes and training needs of all staff working in paediatric diabetes. However, given that clinicians from approximately one-quarter of all services in the UK took part in the survey, the sample includes a significant proportion of professionals working with children and teenagers with diabetes in the UK.

What messages are there for training provision in this field from this study? There was support for multiple methods of delivery of a learning programme, with monthly team-based learning activities rated as most feasible and support given for face-to-face learning, case reflection, colleague and coach observation and feedback. Training within teams at regular intervals may prove a valuable method of learning, particularly in context. Given the lack of previous experience of online learning in communication skills, there

was considerable support for the use of web-based or CD-ROM materials, although potential barriers, such as lack of time, continue to be reported [18]. Unlike previous findings [18,19], lack of skills was barely reported as a potential barrier to accessing web materials and is a likely reflection of the rapid increase in skills in and use of information technology by health professionals in everyday practice. Given potential barriers such as lack of time, electronically delivered learning programmes must ensure flexible delivery, minimal technical demands of the user and timely support.

In the short term, findings from this survey have contributed to the development of a training programme to help practitioners promote behaviour change amongst young people with diabetes and to increase professionals' confidence in addressing routine patient concerns. Skills taught within the learning programme aim to help with discussion of non-medical aspects of patients' lives. Training efficacy will be evaluated through a large randomized controlled trial (the DEPICTED Study). If successful, the programme will fill an important gap in the training needs of healthcare professionals working in paediatric diabetes services and will improve the quality of clinical care of children and teenagers with diabetes.

## Competing interests

The South East Wales Trials Unit is funded by the Wales Office for Research and Development. The DEPICTED trial is funded by the NIHR, Health Technology Assessment Programme and has received limited financial support for the production of an agenda-setting tool from NovoNordisk. JWG and EC have received financial support from NovoNordisk to attend several conferences and EC has received an educational grant from NovoNordisk to support an endocrine research study in Bristol.

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## Appendix

### Example scenario

Emma, a 14-year-old girl comes to see you with her mother. Her HbA<sub>1c</sub> is 13.5% and she has lost 5 kg weight since her last clinic visit. Her mother has told you in confidence that Emma has been feeling low lately and is concerned that Emma has been losing weight deliberately.

How much importance would you give to addressing the following topics?

How confident would you feel addressing these topics?

Her loss in weight

Her HbA<sub>1c</sub> result

Her insulin regimen

Her diet

Her low mood

Her mother's concern about her weight

Emma's views on life with diabetes.