

## Short Report

# 'Educator talk' and patient change: some insights from the DESMOND (Diabetes Education and Self Management for Ongoing and Newly Diagnosed) randomized controlled trial

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### Abstract

**Aims** To determine whether differences in the amount of time educators talk during a self-management education programme relate to the degree of change in participants' reported beliefs about diabetes.

**Method** Educators trained to be facilitative and non-didactic in their approach were observed delivering the DESMOND self-management programme for individuals newly diagnosed with Type 2 diabetes. Observers used 10-s event coding to estimate the amount of time educators spoke during different sessions in the programme. Facilitative as opposed to didactic delivery was indicated by targets for levels of educator talk set for each session. Targets were based on earlier pilot work. Using the revised Illness Perceptions Questionnaire (IPQ-R) and the Diabetes Illness Representations Questionnaire (DIRQ), participants completed measures of: perceived duration of diabetes (timeline IPQ-R), understanding of diabetes (coherence IPQ-R), personal responsibility for influencing diabetes (personal responsibility IPQ-R), seriousness of diabetes (seriousness DIRQ) and impact on daily life (impact DIRQ), before and after the education programme.

**Results** Where data from the event coding indicated educators were talking less and meeting targets for being less didactic, a greater change in reported illness beliefs of participants was seen. However, educators struggled to meet targets for most sessions of the programme.

**Conclusion** The amount of time educators talk in a self-management programme may provide a practical marker for the effectiveness of the education process, with less educator talk denoting a more facilitative/less didactic approach. This finding has informed subsequent improvements to a comprehensive quality development framework, acknowledging that educators need ongoing support to facilitate change to their normal educational style.

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**Keywords** educator training, evaluation, quality assurance, structured education

**Abbreviations** DESMOND, Diabetes Education and Self Management for Ongoing and Newly Diagnosed; RCT, randomized controlled trial

### Introduction

Self management is recognized as one of the cornerstones of diabetes care, with organizations promoting high-quality

diabetes care developing various standards to which self-management education programmes should aspire. However, these standards are largely based on opinion rather than sound empirical evidence [1]. Although there are many systematic reviews and meta-analyses of self-management programmes, few provide evidence as to the content and process by which self-management education should most effectively be delivered. However, we can conclude that a programme will be more

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**Table 1** Targets for educator talk for each session: mean and sd of observed delivery, with number of centres meeting target

	DESMOND target for % educator talk	Observed % educator talk: mean $\pm$ sd	Number of centres meeting target
Patient story	40	36 $\pm$ 18	5
Professional story: glucose	65	75 $\pm$ 6	0
Taking control: glucose	55	67 $\pm$ 11	2
Professional story: complications	65	67 $\pm$ 9	2
Taking control: complications	55	62 $\pm$ 17	2
Goal setting	50	59 $\pm$ 22	4
Whole programme	N/A	62 $\pm$ 19	0

DESMOND, Diabetes Education and Self Management for Ongoing and Newly Diagnosed; N/A, not applicable; sd, standard deviation.

effective the more intensive it is [2], if it has a clear theoretical approach [3], if it is delivered face to face [4], if it incorporates physical activity [4], and if it incorporates cognitive restructuring/greater patient–educator interactivity [4].

This latter finding is the only one explicitly relating to the interaction process between the educator and the person with diabetes. This would suggest that the more the person with diabetes is an active participator during the programme, the more effective the programme is likely to be. However, the coding of programmes of Ellis *et al.* [4] was not based on objective observation, but rather on the description of the intervention provided by the researchers. Unfortunately, the literature abounds with evidence demonstrating that reported delivery of an intervention rarely equates with objective observational assessment [5–8].

The Diabetes Education and Self Management for Ongoing and Newly Diagnosed (DESMOND) Collaborative recently completed a randomized controlled trial of a theory-driven intervention developed for individuals newly diagnosed with Type 2 diabetes, which included a training component for educators delivering the intervention [9]. As part of the evaluation process, educators were observed delivering the education programme as a quality assurance check on the style of delivery. This paper presents data on this process and how the standards set for participant–educator interaction relate to changes in the illness beliefs of participating patients.

## Method

Centres participating in the DESMOND randomized control trial (RCT) were observed delivering the programme by the multidisciplinary team who trained the DESMOND educators. In seven of the centres, an additional objective assessment of the participant–educator interaction was undertaken during the same observation visit. This involved the coder sitting quietly and unobtrusively at the back of the room, with a CD playing into a headphone whilst observing the programme. The CD was silent, except for a beep sounding every 10 s. When the beep sounded, the coder indicated on a response sheet who was talking at that point (whether an educator or a participant), with other activity classed as 'miscellaneous' (indicating silence,

laughter or multiple conversations during learning activities). The start and finish times of sessions were noted. Based on similar observations of the DESMOND pilot study [10], a standard for percentage educator talk was set for each session (Table 1).

Participants completed a questionnaire prior to attending and 4 months post-attendance. The questionnaire included scales assessing the degree to which the individual agreed their diabetes was a chronic illness they would have for the rest of their life (timeline [11]), how much they understood their diabetes (coherence [11]), how serious they thought their diabetes was (seriousness [12]), how much impact they thought it would have on their day-to-day life (impact [12]) and how much control they thought they had over the course of their diabetes (personal responsibility [11]).

For the purpose of the present analysis, we have focused on the six main sessions of the programme. The 'Patient Story', the first session, involves each patient exploring how they discovered they had diabetes and what they already know or believe about the condition. The two 'Professional Story' sessions centre around helping individuals understand their diabetes and its complications. The two 'Taking Control' sessions focus on helping individuals understand the different self-management choices available to them to help control their diabetes (e.g. food choices, medication, physical activity). Finally, in the penultimate session of the programme, 'Goal Setting', participants are encouraged to develop their own self-management plan for their diabetes. We do not present the data for 'patient talk' and 'silence/miscellaneous' here, as there were no targets set for these categories, which together can be understood as the inverse of 'educator talk'.

## Results

A total of 295 individuals attended the DESMOND programme in the seven participating centres making up this sample, with each centre contributing between 30–55 participants. Of these, 47% of attendees were female, 96% considered themselves to be of White European origin and attendees had a mean age of 58.8  $\pm$  2.2 years (mean  $\pm$  sd). Table 1 provides a summary of the educators' delivery of the intervention, with no site meeting all the standards. Educators performed poorest when trying to help participants understand blood glucose regulation and best when eliciting participants' understanding of their diabetes.

Change scores for illness beliefs were computed and then compared for centres meeting the targets for each of the five sessions. Centres meeting the target for the 'Professional Story: Complications' session had participants who reported a greater change in the perceived chronicity of their illness ( $t = 1.72$ ;  $P = 0.044$ ) but there was no difference for any other measures. Centres that met the target for the 'Taking Control: Glucose' session had participants who reported a greater change in personal responsibility for diabetes ( $t = 1.73$ ;  $P = 0.043$ ), but there was no difference for any other measures. Centres that met the target for the 'Taking Control: Complications' session had participants who reported a greater change in the seriousness of their diabetes ( $t = 2.10$ ;  $P = 0.018$ ), but there was no difference for any other measures. Four centres achieved the targets on three sessions, with the others achieving the targets for one or no sessions. Those centres who reached targets for interactivity for three sessions had individuals who reported a greater increase in the perceived seriousness of diabetes ( $t = 2.49$ ;  $P < 0.007$ ).

## Discussion

These results provide some of the first data linking observed educator behaviour to changes in illness beliefs of patients attending a self-management education session. They indicate that less educator talk in a session will lead to greater change in participants' beliefs about their diabetes. Given that the beliefs which would appear to be affected here have been shown to be predictive of changes in metabolic control in both the DESMOND pilot [10] and RCT [9], this is a particularly important result.

The results show that no centre managed to achieve the targets set for all the sessions; the most reached was three out of the six key sessions. Furthermore, no centre managed to reach the 'educator talk' targets when helping participants understand blood glucose regulation, despite modelling of the programme to these standards during training and provision of a sample script in the curriculum demonstrating how this could be achieved. This suggests that educators need more than just attendance at initial training to enable the required shift in professional behaviour. This is a point evident from other professional training studies [5,6] and which fits with our understanding of the process of behaviour change [13], namely that sustaining change in habitual styles of behaviour requires an intention to change (importance), the training in the skills for change (competence) and belief in the ability to change (confidence). However, even when change has occurred, it requires ongoing support to prevent relapse and to act as an incentive for continuous development and growth [14,15]. Therefore, the implementation of ongoing personal reflection and observed quality development visits would seem essential if educators are to achieve the necessary change in professional behaviour sufficient to provide an optimal learning environment.

There are, of course, several limitations with this study. Firstly, only one programme was observed in each centre, with

the results of the observation being fed back to the educators at the end of the programme. As the timing of the observation in the sequence of programmes differed between centres, this may have confounded the results. Secondly, the time lag between assessments of illness beliefs and the completion of the education programme means that findings could have been influenced by other factors that are also different between sites. A third point to consider is that the presence of the observer may have led to increased educator anxiety and to reversion to a more didactic mode of delivery than usual. Thus, more detailed work to examine whether differences in the amount of time educators speak does indeed translate to differences in beliefs and subsequent metabolic outcomes is clearly warranted. However, this paper describes a unique, innovative and simple way of assessing educator activity, which appears to be closely linked with patient beliefs and which could be easily incorporated into a more comprehensive quality development framework. This paper should therefore be considered as describing a pilot which demonstrates the feasibility of using this methodology, as well as the potential importance of examining educators' behaviour as part of the conduct of trials of self-management education through the independent observation of programmes. The work described in this paper has subsequently led to substantial revision and development of the DESMOND programme's training and quality assurance framework for educators, of which this observational tool is a key component, used both by educators and trainers to facilitate reflection on their own practice. Experience to date suggests that these revisions have been successful in facilitating greater interactivity in more recently trained educators [16].

## Competing interests

Nothing to declare.

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