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Using an interactive DVD about type 2 diabetes and insulin therapy in a UK South Asian community and in patient education and healthcare provider training

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ABSTRACT

Objectives: To develop and pilot-test the feasibility and effectiveness of an interactive DVD about misconceptions within South Asian communities regarding insulin treatment in type 2 diabetes, for educating patients and community members and training healthcare providers.
Methods: The project setting was a South Asian (mainly Indian) community in Leicester, UK. Qualitative evidence from our previous studies was used to inform the content of the DVD script and accompanying resources. The intervention involved three components: facilitating DVD viewings for people with/without diabetes in community settings; training healthcare providers involved in managing South Asian patients with diabetes in primary care; and using the DVD and resources in primary care patient consultations. Evaluation involved a range of approaches including face-to-face interviews, telephone feedback and questionnaires.
Results: Analysis of questionnaires and qualitative feedback from community participants showed some significant changes in attitudes and understanding about insulin and high acceptability of the DVD. Healthcare providers who attended the training found it informative and perceived the DVD and visual resources as potentially useful for facilitating acceptance of insulin. Primary care patient recruitment was challenging, but participants described the DVD as an acceptable and informative way of learning about insulin therapy.
Conclusion: The DVD intervention was effective and feasible at community and healthcare provider levels.
Practice implications: Although based on a small sample, at patient level our findings suggested that the DVD worked at different levels helping some to accept the need for insulin and others to consolidate a decision to commence this treatment. Consideration needs to be given to patient engagement strategies for implementation in primary care consultations.

1. Introduction

Type 2 diabetes is a very common chronic condition and people from South Asian background have an increased risk of being affected.[1] Studies of patient diabetes management records have shown that, whilst overall improvements in levels of glycaemic control were evident for both South Asian and white British patients, South Asians were more likely to have sub-optimal glycaemic control.[2–4] The need for optimal glycaemic (blood glucose) control for South Asian patients with type 2 diabetes is particularly salient as they have been shown to have an increased risk of microvascular complications [5–7] and a 50% raised risk of mortality from diabetes associated coronary heart disease, compared to white British people.[7–9] It should be noted, however, that there are differences within the broad category of people described as South Asians, for example, people originating from Pakistan have a higher risk of coronary heart disease than those from India.[2]

Insulin therapy plays an important role in helping to address deteriorating glycaemic control that cannot be treated by lifestyle changes or oral agents.[10] Research comparing prescribing levels of insulin has identified persisting lower levels in South Asians compared to white British patients, despite poorer levels of

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glycaemic control.[2,8,11,12] Explanations for differences in rates of insulin prescribing between ethnic groups include a greater reluctance on the part of South Asians than white British patients to commence insulin therapy [13,14] attributed in part to cultural health beliefs [14]; and the influence of family.[14,15] These studies [13,14] have also highlighted psycho-social barriers described by the concept of psychological insulin resistance (PIR) [16,17] that are found more generally in patient populations irrespective of ethnicity, for example, fear of needles and social stigma.

In this paper, we describe an exploratory study conducted in Leicester, UK, which has a high proportion of people from South Asians backgrounds, predominantly originating from India. We aimed to develop and pilot-test an intervention based on dispelling myths and misconceptions about insulin (Fig. 1). These incorrect perceptions were identified in the findings from a series of qualitative studies in which we had previously explored attitudes and perceptions about, the use of insulin in people from the local South Asian community in Leicester, UK. These studies included interviews with South Asian people with type [18] and type 2 [19] diabetes and also health care providers involved in the management of people with type 2 diabetes in an ethnically diverse community.[20] Misconceptions about insulin were perceived as contributing to reluctance to accept this medication and our findings suggested that some myths may be specific to, or enhanced in, people from South Asian backgrounds.[19,20] These findings were reinforced by discussions during our patient and public involvement (PPI) activities within the local South Asian community. The importance of social context in terms of influencing South Asian patients' decisions about commencing insulin therapy suggested the need to include education at community level.

Data regarding levels of literacy and health literacy in people from different ethnic backgrounds living in the UK is scarce, but there is some limited published evidence of lower health literacy skills within South Asian communities.[21,22] Anecdotal evidence derived from our own knowledge of, and experience of conducting research involving the local South Asian population in Leicester strongly supported the existence of such limitations in some sections of this community. We were aware of limited literacy skills in any language in some people and also limited health literacy related to diabetes and more generally. We considered that the use of a DVD containing simple messages, rather than written materials, would be a way of meeting the needs of people with these limited skills, in order to facilitate access to enhanced understanding of the use of insulin in type 2 diabetes.

2. Methods

In describing our methods, we first provide information about how the DVD was initially developed and refined to be used in our intervention. We then describe how the same DVD was used in different ways in the three components of the intervention, namely: for training healthcare providers involved in managing South Asian patients with diabetes and/or in decisions about initiating insulin therapy; for educating South Asian people with/without type 2 diabetes in community settings; and for use in the management of South Asian patients with type 2 diabetes in primary care.

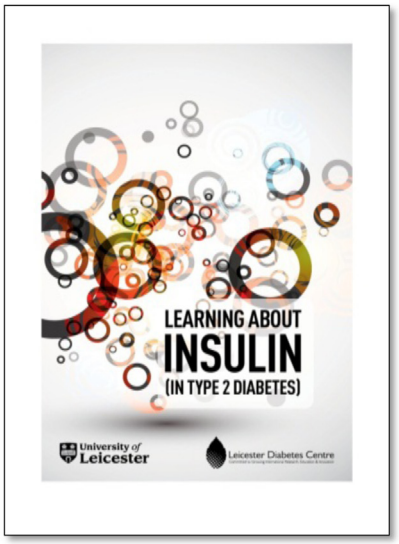
Development of the educational DVD to address misconceptions about insulin highlighted by our previous research was guided by discussions between members of the research team and the charitable organisation Thare Machi Education.[23] This charity undertakes education using interactive educational DVDs on health issues such as HIV, TB and basic hygiene, in countries such as China, India and Ghana. In addition to our perceptions

The myths within the script

Misconceptions about insulin identified from the authors' previous qualitative work:

- Severity of diabetes associated with insulin therapy
- Fear of hypos
- Personal failure
- Insulin causes complications
- Painful injections
- Self-administration will be difficult
- Stigma attached to needles and its association with drug use
- Insulin from animal sources
- Loss of driving licence

Front page of the script



Sample page from the script

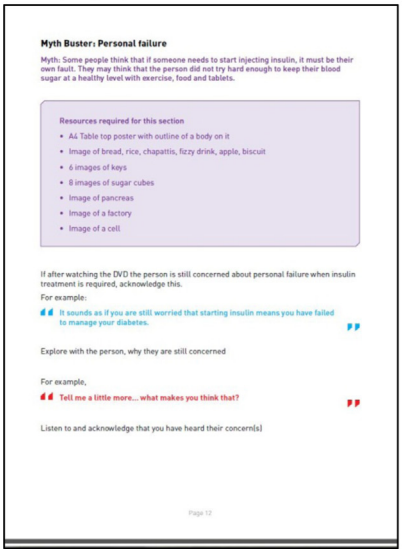


Fig. 1. Myths and Script