



# Evaluation of Initial Structured Group Education in Newly Diagnosed Type 2 Diabetes

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## Introduction:

Established educational programmes for Type 2 diabetes (e.g. Desmond, X-pert), may be more suitable for patients with some experience and knowledge of diabetes and of learning in a group environment. A short initial education session is likely to be more appropriate at diagnosis. A single structured 2 hour session in group format delivered by a dietitian has been offered to patients in BCUHB since September 2009, and currently runs:

- Within five localities in Wrexham and Flintshire, covering a population of 290,000;
- With seven trained dietitians delivering seven group sessions/month across these five localities;
- With an average referral rate of 55 newly diagnosed patients with Type 2 diabetes per month \*
- With capacity to provide a group session within four weeks of referral to the dietetic department
- With an average attendance rate of 73% \*

\* (data period September 2011 - November 2011)

This analysis aims to assess which aspects of knowledge are weakest and which can be most improved. The assessment of patients' confidence both in engaging with group education, and with ability to self-manage is presented in poster P271 titled "A single session of structured education for newly diagnosed individuals with Type 2 diabetes enhances confidence in engaging group education and ability to self-manage"

## Method:

An 11 item questionnaire was devised to assess knowledge of diet and exercise/activity in diabetes self-management. Possible answers were yes/no and "unsure". Subjects completed the questionnaire immediately before and after participating in the group session. Changes in proportions of answers correct were assessed by Chi square test. Only complete sets of answers before and after the group session were used in the evaluation.

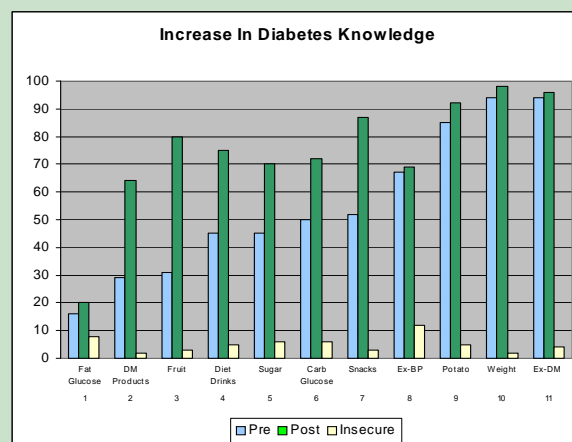
## Results:

**Table 1.** Numbers of correct answers before and after education session and the significance of the improvement.

Question	Correct Before	Insecure	Secure	Correct After	Chi Square P Value
1. Foods containing fat cause blood glucose to rise	20/126	10 (8%)	10/116	25/116	p=0.006
2. I need to follow a 'Diabetic Diet'	36/126	3 (2.5%)	33/123	80/123	p<0.001
3. I should avoid some types of fruit	39/126	4 (3%)	35/122	101/122	p<0.001
4. Diet drinks are suitable for people with diabetes	57/126	6 (5%)	51/120	94/120	p<0.001
5. Sugar is carbohydrate	57/126	7 (5.5%)	50/119	89/119	p<0.001
6. Foods containing carbohydrate cause blood glucose to rise	63/126	8 (6%)	55/118	91/118	p<0.001
7. I need to eat regular snacks between meals	65/126	4 (3%)	61/122	110/122	p<0.001
8. Regular exercise/activity will raise blood pressure	84/126	15 (12%)	69/111	87/111	p=0.008
9. Potato is carbohydrate	107/126	6 (5%)	101/120	116/120	p=0.001
10. Preventing weight gain can help control diabetes	119/126	2 (1.5%)	117/124	123/124	Unable *
11. Regular exercise/activity will help control diabetes	119/126	5 (4%)	114/121	120/121	Unable *

Insecure – patient response to this question was correct prior to the session, but incorrect post session  
Secure – patient response to this question was correct prior to and after session  
Unable – unable to analyse questions 10 and 11 using Chi squared test as only one subject in the correct after cell

**Table 2.** Comparison of knowledge (percentage answering correctly) pre and post group education session.



## Conclusion:

1. These structured diabetes education sessions produced improvement in knowledge in all areas of diabetes related knowledge tested.
2. This analysis suggests the areas where patients' knowledge at diagnosis of diabetes is weakest and initial benefit most likely.
3. Prior knowledge was weakest regarding fruit, diet drinks and diabetic products and the relationship between foods containing fat or carbohydrate and blood glucose levels.
4. The greatest gain in knowledge occurred about the effects on diabetes of fruit, diet drinks, diabetic products and snacking.

This is a pilot study which illustrates the potential benefit of measuring knowledge before and after a structured education programme. Patients' self-rated confidence in their ability to self manage their diabetes (poster 271) will also contribute to changes in patient self-management behaviour.

## References

1. NICE Clinical Guidance 87, Type 2 Diabetes 2009
2. Structured Patient Education in Diabetes, Report from the Patient Working Group, Department of Health & Diabetes UK, 2005

## Acknowledgements

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