

CAHE JC Critically Appraised Article Summary

Journal Club Details

Date of submission	February 2009
Journal Club location	ECH (Greenacres Community Therapy Service)
JC Facilitator	Gillian Hendrie
JC Discipline/s	Multi-disciplinary

Clinical Scenario

Is there evidence for the effectiveness of multidisciplinary approach to diabetes management in terms of glycaemic control?

Review Question/PICO/PACO

- P** Patients with type II diabetes
- I** Multidisciplinary approach to diabetes management
- C** Conventional approach
- O** glycosylated haemoglobin, fasting blood sugar

Article/Paper

Song MS, Kim HS. Effect of the diabetes outpatient intensive management programme on glycaemic control for type 2 diabetic patients. *Journal of Clinical Nursing* 2007; 16(7): 1367-1373.

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Article Methodology: Pre-post experimental design

Returned JC on: 11 February 2009

By CAHE staff member: Lucyllynn Lizarondo

Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>The study asked a clearly focused question.</p> <p><i>Participants:</i> Patients with type II diabetes according to the American Diabetes Association criteria; should be able to perform blood glucose self-testing, take oral hypoglycaemic agents and understand the goals, methods and procedures; excluded were those who had <7% HbA1c, mental illness and had diabetic complications</p> <p><i>Intervention:</i> Intervention group received multidisciplinary diabetes education, complication monitoring, and telephone counselling during 12 weeks (DOIMP). The control group received a brief conventional description of diabetes mellitus and was instructed to undertake medical nutrition therapy by a diabetic education nurse.</p> <p><i>Outcomes:</i> glycosylated haemoglobin (HbA1c), fasting blood glucose (FBS), 2-hour postprandial blood glucose (2-h PBG)</p>
2			✓	<p>The study was a pre-post control design. It would have been ideal if it was an RCT (randomised controlled trial), as the potential threats to internal validity would have been minimised. However, the approach used by the authors was still able to address the research question.</p> <p>Is it worth continuing? YES</p>
3		✓		<p>It was not reported in the study how the participants were recruited.</p> <p>Whilst randomisation was not observed in the study, it is good to note that, at baseline, there were no differences in the socio-demographic and clinical (level of HbA1c, FBG, 2-h PBG) characteristics of study participants.</p>
4		✓		<p>The study did not report any forms of blinding, except for those in the control group, where the authors mentioned that participants were unaware of the DOIMP. It would be important to consider if the patients allocated to the DOIMP were blinded, as this would have potential impact in the outcomes. The attitude and level of motivation of patients would have changed if they are aware of their allocation to the DOIMP, which is the intervention being tested. In this study, assessor blinding would not be as important, because it is not likely that he/she would have affected the results. The team who provided the intervention could have possibly altered the treatment if they were aware of the group allocation, but it is still not very likely.</p>
5			✓	<p>There were 10 patients who withdrew before the study was completed. An intention-to-treat analysis was not done, nor was there any report of how the drop-outs could have possibly affected the results.</p>
6	✓			<p>Outcomes were measured and collected in the same way and same period of time for all participants.</p>



Ques No.	Yes	Can't Tell	No	Comments
7	✓			Power calculation was done to determine the adequate number of participants.
8				Results were presented using means and SD. P values were computed to determine differences between groups. <i>Bottom line result:</i> Diabetes outpatient intensive management programme can reduce HbA1c in patients with type II diabetes.
9				Differences between groups were determined based on p-value computation. Results may therefore be considered precise.
10				There were significant flaws in the methodology of the study, which may limit the extent to which the results may be applied to clinical practice. Other variables (effect of media, duration of contact time), such as those reported by the authors, could also impact on the outcomes. Whilst the study has flaws in its methodology, the benefits from an intensive management using a multidisciplinary approach seem promising.