Evaluation de l'impact d'un nouvel outil d'éducation thérapeutique sur les activités d'autosoin chez le diabétique de type 2 de l

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BACKGROUND

- Optimal management of T2D requires that multiple complex behaviours must be performed on a long term basis.
- Therapeutic patient education (TPE) represents a corner stone of patient management by improving the skills of self management.
- Patients adherence to treatment recommandations improves their metabolic control and decreases morbidity and complications.
- Components of self management include medication adherence, dietary regulation, physical activity, psychosocial stress control and self monitoring of BG to assess glycemic control.
- Inadequacy of diabetes education has been identified as a risk factor for poor glycemic control.
- The classic « rules based education » has a failure rate approaching 50% in T2D patients .
- Multiple educational programs has been proposed based on different theories, design, main goals and length of periods.

AIM OF THE STUDY

- The overal aim of this study was to evaluate the impact of a new tool of TPE on diabetes quality of life and glycemic control among adults with T2D

METHODS

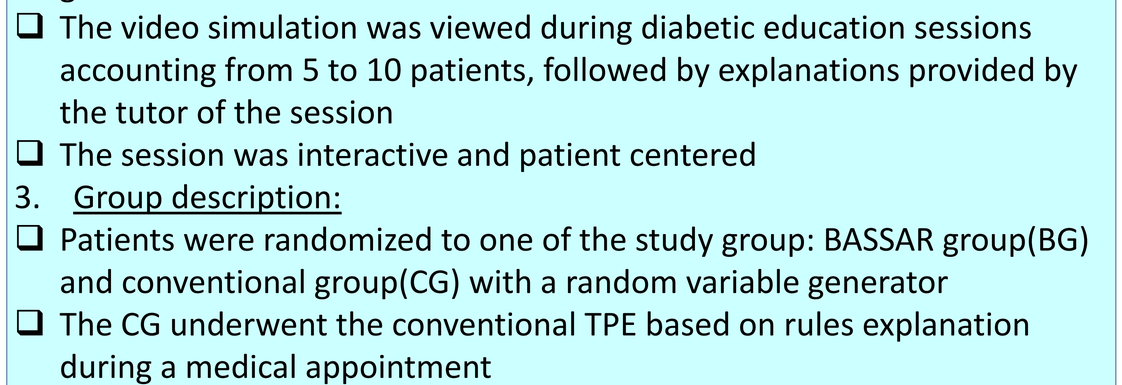
1. Procedure and participants:
- Randomized controlled trial was conducted in the diabetes education unit of our department
- Participants were recruited on a voluntary basis
- Inclusion criteria: T2D patients aged between 20 and 80 y.o/ HbA1c> 8%
- Exclusion criteria: ocular complications of diabetes, psychiatric disorders, lack of appointment compliance

2. Description of the BASSAR tool:
- BASSAR is a video simulation representing the expected vision of a diabetic patient having ocular complication of diabetes
- Different pathologic situations were reproduced in every day life scenarios: Cataract, macular edema, intravitrous hemorrhage, glaucoma…
- The video simulation was viewed during diabetic education sessions accounting from 5 to 10 patients, followed by explanations provided by the tutor of the session
- The session was interactive and patient centered

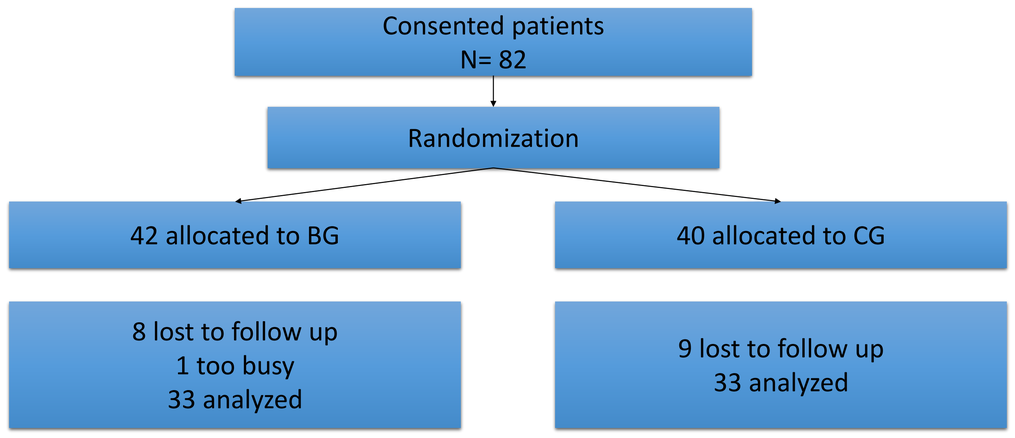
3. Group description:
- Patients were randomized to one of the study group: BASSAR group(BG) and conventional group(CG) with a random variable generator
- The CG underwent the conventional TPE based on rules explanation during a medical appointment
- The follow up period is 6 months with appointments at 3 and 6 months

4. Outcome measures :
- Glycosylated haemoglobin HbA1c: normal values 3.5-5.5 (HPLC) (primary end point)
- Quality of life was evaluated by the diabetes quality of life test and the SF 12

5. Data analysis:
- primary analysis was done as intention to treat
- All values are expressed as mean±SD or as a percentage
- Changes from baseline values at the end of the study were compared with paired t-test
- Categorical variables were compared using chi-square and fisher exact tests
- P value <0.05 was considered statically significant



RESULTS



General design of the study

Variables	BG (n=33)	CG (n=33)	P Value
Age,yr, mean SD	48,7(13.4)	48,1(12,3)	0.87
Sex, no.(%) of men	16 (48.5)	19 (57.6)	0.459
Highest education level			
Less than high school	9	5	0.477
High school	10	11	
Higher than high school	14	17	
Exercice, week, no.(%)			
No	18(54,5)	17(51.5)	0.805
Yes	15(45.5)	16(48.5)	
Exercice, number, mean (SD)	1,4(1.9)	1,7(2.6)	0.593
Exercice, min, mean (SD)	33.4(59.6)	59	0.164
DM evolution (years)	8±3	10±4	0.153
HbA1c	8.9±0.5	8.7±0.6	0.56

Table 1: General Characteristics of the subjects

	Onset	3 Months	6 Months	P Value
HbA1c				
BG	8.9±0.5	7.5±1.4	7.6±0.9	0.008
CG	8.7±0.6	7.7±0.9	7.6±0.7	0.001
Between groups	ns	ns	ns	
Diabetes quality of life (lower score better perception)				
Satisfaction				
BG	37±9	33±6	33±6	ns
CG	28±7	27±5	27±5	ns
Impact				
BG	44±6	41±7	42±7	ns
CG	43±7	38±6	38±6	0.05
Social worry				
BG	14±2	14±3	14±3	ns
CG	13±3	12±5	12±5	ns
Diabetes worry				
BG	8±1	8±2	8±2	ns
CG	8±2	7±1	7±1	ns
SF-12 health survey (higher score better perception)				
BG	37±4	37±3	36±2	ns
CG	37±3	37±4	37±2	ns
No glycemic control > 3/week (% of patients)				
BG	40	82	80	0.0001
CG	25	88	92	0.0001

Table 2: Results of metabolic control, quality of life and self-management

CONCLUSIONS

- Improvements in metabolic control was similar in both groups at 3 and 6 months
- General health status SF12 test did not change during the study in either group
- We found that Bassar tool may be useful in improving metabolic control, self management knowledge and skills , and DQOL scores
- However a long term evaluation is necessary to confirm its impact on diabetic complications especially diabetic retinopathy
- Additional research is needed on a largest sample size
- The use of new technology supplies like smart phones, electronic tabs, represents one of the alternatives for a cost effective therapeutic education.