1083-PD/ Group-based peer support in type 2 diabetes: Secondary data analysis of a cluster randomized controlled trial

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Aim

This study aimed to explore if group-based peer support as an additional component to a disease management program (DMP) in type 2 diabetes can reduce the number of prescribed drugs, hospital admissions, and length of hospital stay and therefore be a cost-effective model.

Method

This was a secondary data analysis of 24 months cluster randomized interventional study, *"Aktivtreff Diabetes"* (1). General practitioners and patients in the state of Salzburg already enrolled in the Austrian DMP *"Therapie Aktiv"* were invited to participate. The intervention consisted of regular group meetings facilitated by trained peer supporters. The groups (clusters) exercised together, discussed medical, nutritional, personal, social and emotional issues, and received intermittent support by professionals. Patients in the control clusters received standard care according to the Austrian DMP. Anonymized data on prescribed drugs and hospitalizations was collected by the Salzburg public insurance company. Data was analyzed on a cluster basis instead of comparing data of individual patients.

Results

Two hundred and sixty-one patients (79.6%) of our intention-to-treat-population (n=328) were insured by the Salzburg public insurance company. No significant differences between intervention groups and controls during the 24 months study period were seen in number of prescribed drugs, costs of prescribed drugs and number of all-cause hospital admissions (table 1).

Table 1 Prescribed drugs and hospitalizations during the 24 months study period

Descriptive statistics	Intervention (n=118, 17 Clusters)	Controls (n=143, 19 Clusters)
Prescribed drugs[1]		
Total	15,179.0	19,066.0
Weighted mean	162.6	133.3
Cost of prescribed drugs *(€)*		
Total	312.902,9	307,928.3
Weighted mean	2.652,3	2,153.3
Hospital admissions (all-cause)		
Total	174.0	229.0
Weighted mean	1.5	1.6
Length of hospital stay (days)		
Total	1,110	2,003
Weighted mean	9.4	14.0

[1] Prescribed drugs collected at a pharmacy

The length of hospital stay was shorter in the intervention groups compared to controls. The mean difference was -40.13 days (95% CI -78.54 to -1.71, p = 0.041, student's t-test) in favour of the intervention group. The estimated cost savings based on reduced length of hospital stay are 1,700 per year (table 2).

Table 2 Estimated costs and savings during the 24 months study period

Costs	Controls (n=143)	Intervention (=118)	Savings
DMP-care *"Therapie Aktiv"*	260[a]	260[a]	
Intervention *"Aktivtreff Diabetes"*[b]	-	334	
Prescribed drugs	2,153	2,652	
Estimated hospitalization costs[c]	12,914[d]	8,673[e]	
Total	**15,328**	**11,919**	**3,409**

[a] DMP-physicians are reimbursed with €130/patient per year
[b] Direct costs
[c] Based on mean cost per inpatient care in Austria in 2013, €922/hospital day
[d] 2,003 hospital days *€922/143=€12,914
[e] 1,110 hospital days*€922/118=€8,673

Discussion/Conclusion

A group-based peer support program as an additional component of a DMP in type 2 diabetes is a promising approach to optimize diabetes care. Peer support enables general practitioners to offer additional support to patients willing to get We assume that our peer support program could reduce all-cause hospital admissions and length of hospital stay and could therefore be a cost-effective model. Cost-effectiveness analyses of peer support programs are necessary to confirm these findings.

Take Home Message

A **peer support programm** as an additional component of a DMP in type 2 diabetes is feasible and can strengthen a healthier lifestyle.

„Aktivtreff Diabetes" seems to **reduce length of hospital stay** and therefore reduce hospitalization costs compared to DMP-care alone.

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References

(1) T. Johansson, S. Keller, H. Winkler, T. Ostermann, R. Weitgasser, and A. Sönnichsen, "Effectiveness of a Peer Support Programme versus Usual Care in Disease Management of Diabetes Mellitus Type 2 regarding Improvement of Metabolic Control: A Cluster-Randomised Controlled Trial," Journal of Diabetes Research, Article ID 716174, in press.

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