VU Research Portal

Introducing an innovative method in team conferences

Jelles, F.; van Bennekom, C.A.M.; Lankhorst, G.J.; Bouter, L.M.; Kuik, D.J.

published in

Disability and Rehabilitation
1996

DOI (link to publisher)

[10.3109/09638289609165898](https://doi.org/10.3109/09638289609165898)

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Jelles, F., van Bennekom, C. A. M., Lankhorst, G. J., Bouter, L. M., & Kuik, D. J. (1996). Introducing an innovative method in team conferences. *Disability and Rehabilitation*, 18(7), 374-379.
<https://doi.org/10.3109/09638289609165898>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

CLINICAL COMMENTARY

Introducing an innovative method in team conferences

F. JELLES, C. A. M. VAN BENNEKOM, G. J. LANKHORST,
L. M. BOUTER and D. J. KUIK

Accepted for publication: October 1995

Keywords team conferences, Rehabilitation Activities Profile (RAP)

Summary

An innovative method to structure multidisciplinary team conferences in rehabilitation medicine was developed: Rehabilitation Activities Profile report system (RAP-TEAM). Experiences with introduction of RAP-TEAM and the study of its effects on the satisfaction of professionals are described. RAP-TEAM was introduced in three teams. RAP-TEAM did not influence the satisfaction of professionals in two teams; satisfaction in the third team even decreased. Nevertheless, professionals report more benefits than disadvantages of RAP-TEAM. Several possible explanations for these results and the methodological problems with this kind of evaluation study are discussed. The most important explanation is that introduction of an innovative method should be allowed sufficient time before it could become effective. Recommendations for a successful introduction of innovative changes are made. All people concerned must be aware that a process of change is not simple, and needs the full attention of all.

Introduction

Professionals in rehabilitation medicine work together in teams.^{1,2} One of their hallmarks are team conferences,³⁻⁵ which are at the core of patient care, because during team conferences rehabilitation goals are formulated and adapted.⁶

Studies about the functioning of team conferences are mostly descriptive. They concern interaction during team conferences, professionals' verbal behaviour and deviations from ideal team conferences as perceived by professionals.^{7,8} Studies with experimental and control groups which aim to study the consequences of change in organization and content of team conferences in re-

habilitation medicine are very scarce. Halstead *et al.*⁹ described efforts to create innovative changes in a rehabilitation team. Changes were mainly focused on the weekly team conferences. Innovations concerned, for instance, involvement of patients in conferences, use of a structured format and the appointment of a coordinator. The authors reported that the innovative team changed from a hierarchical, physician-dominated team to a more democratic one. These findings suggest that team conferences may benefit from innovative changes.

The present article describes and discusses experiences with the introduction of an innovative method to structure team conferences in rehabilitation medicine, and the preliminary study of its effects on the satisfaction of professionals. The method introduced is the Rehabilitation Activities Profile report system (RAP-TEAM),¹⁰ which has been described in a previous article.¹¹ At the start of the study two questions were formulated: (1) How does RAP-TEAM affect the satisfaction of professionals with team conferences?, (2) What is the experience (benefits and disadvantages) of users with RAP-TEAM?

Methods

RAP AND RAP-TEAM

The Rehabilitation Activities Profile (RAP)^{12,13} is the backbone of RAP-TEAM. The RAP is an assessment method for disabilities in the domains 'communication', 'mobility', 'personal care', 'occupation' and for handicaps in the domain 'relationships' using four-point Likert scales.^{14,15} Simultaneously, a patient's own perception about the disabilities and handicaps identified ('perceived problems') is recorded on four-point Likert scales. The RAP consists of 21 items in five domains. These 21 items are divided into a total of 71 subitems (two-level structure). The intra-rater and inter-rater reliability of the items and subitems of the RAP was

Correspondence to: F. Jelles, PhD, University Hospital Vrije Universiteit, Department of Rehabilitation Medicine, PO Box 7057, 1007 MB Amsterdam, The Netherlands.

found to be good to very good.¹⁶ Content, criterion, and construct validity could be confirmed.¹⁷ It has also been demonstrated that RAP is a responsive measure.¹⁸

RAP-TEAM is a report system intended to structure team conferences. The RAP items and subitems form the most important part of this report system.¹¹ In RAP-TEAM† four types (A–D) of forms are used.¹⁰ In short, the physician fills in A-forms producing a profile on item-level, supplemented with additional textual information, for instance about physical examination data and preliminary rehabilitation goals. These goals are allocated to professionals. A-forms are used to convey information to professionals at the start of the rehabilitation process. Before every team conference, professionals report their results on B-forms by means of scores for subitems which were allotted to them. Professionals may add textual information (e.g. on the course of rehabilitation) as well as subitem scores. C-forms are a compilation of B-forms distributed to all professionals prior to team conferences. As a result of subsequent team conferences D-forms arise as minutes which contain a new profile on item-level, supplemented with rehabilitation goals and written text.

DESIGN AND INSTRUMENTS

We used an untreated non-equivalent control group design with pretest and post-test.¹⁹ Three teams in two rehabilitation centres participated as experimental teams where RAP-TEAM had been introduced. The three teams were mostly involved in treatment of inpatients with spinal cord injury, with stroke patients or otherwise brain-injured patients, and with patients with various diagnoses, respectively. Seven teams (involved with patients with various diagnoses) in another centre served as control teams where RAP-TEAM had not yet been introduced.

For research question 1, a questionnaire which assesses a professional's satisfaction with team conferences was used to establish the effects of RAP-TEAM.²⁰ A single mean score is obtained which expresses a professional's satisfaction with team conferences, and ranges from 1 to 7. For question 2, a questionnaire was used to describe professionals' experience with RAP-TEAM. User experience consisted of reporting benefits and disadvantages (open-ended questions) and a mark using a

1–10-point interval scale (1 = very bad, 10 = excellent) with RAP-TEAM.

Several processes could hamper the internal validity of the study. Social desirability is a major threat which may obscure the validity of questionnaires;²¹ this was therefore assessed using a scale composed by Hermans.^{22–24} Moreover, for proper inferences team conferences in the experimental teams should change only because of RAP-TEAM, and team conferences in the control teams should not change at all between pretest and post-test. Professionals registered the extent of extraneous changes of the team conferences on a 1–5-point ordinal scale (1 = no change, 5 = complete change).

DATA COLLECTION AND ANALYSIS

The questionnaire which assesses a professional's satisfaction with team conferences was filled in shortly before the introduction phase (which took about 4 months) of RAP-TEAM. After the introduction phase professionals worked for 6 months with the system, after which the questionnaires were filled in again. For both assessments the professionals were asked to judge the previous 3 months, a period chosen arbitrarily. The questionnaire which assesses user experience (benefits and disadvantages) with RAP-TEAM was filled in after introduction in the experimental teams only. Regression analysis was used to determine as validly as possible the effect of RAP-TEAM on the satisfaction with team conferences. As independent variables we chose: gender, discipline, centre, team and social desirability. Two regression functions were fitted: the first one was a preliminary regression equation in which pretest satisfaction with team conferences in all teams was the dependent variable; a second regression function was fitted to determine the difference in satisfaction with team conferences in all teams between pretest and post-test (answer to question 1). For these analyses the stepwise linear regression module 2R of the BMDP statistical package was used.²⁵ Records with missing values on variables of interest were omitted from the analyses. A chi-square test was used to determine if extraneous changes had occurred between pretest and post-test.

Results

RESPONDENTS

Respondents from various disciplines participated: rehabilitation medicine, physical therapy, social work, speech pathology, etc. Response was extremely good at

† RAP-TEAM is a software program which produces the necessary forms for team conferences. It is as yet available only in Dutch. Information can be obtained from the Department of Rehabilitation Medicine of the Vrije Universiteit in Amsterdam.

Table 1 Benefits of disadvantages of RAP-TEAM reported by the three experimental teams†*Benefits of RAP-TEAM*

(Detailed) description of current status of a patient (medical and psychosocial condition, functional status) including perceived problem, and changes in status; nothing is forgotten (3)‡
 Formulation, attuning and summary of rehabilitation goals (2)
 Provides information from the various disciplines (2)
 Structure (2)
 Surveyable (2)
 Layout of forms, representation of scores as profile (2)
 Uniformity of language (1)
 Oriented to disabilities and handicaps (1)
 Forms are easily filled in (1)
 Room for additional information (1)

Disadvantages of RAP-TEAM

Information is missing§ (3)
 Too much paper (3)
 Time-consuming (filling in and reading forms) (2)
 Information is too superficial (1)
 Scores do not give enough information (1)
 It is not possible to report information you want (1)
 Lack of discussion during team conferences (1)

† Benefits and disadvantages are attributed to a team if they have been reported by at least three individual team members.

‡ The number of teams that reported a benefit or disadvantage is stated between parentheses.

§ All missing information reported concerns psychological impairments.

the pretest: in one experimental centre 98 % ($n = 37$), in the other centres 100 % ($n = 18$ and $n = 56$). The number of professionals that also filled in the satisfaction questionnaire at the post-test was much less than we had expected: $n = 23$, $n = 8$, and $n = 42$, respectively. This was caused by staff turnover, but mainly by non-response due to a decreased motivation for participation in the study.

SATISFACTION WITH TEAM CONFERENCES

Mean pretest satisfaction with team conferences in all teams was rather neutral. Most professionals were neither satisfied nor dissatisfied with team conferences. Individual scores obtained from the first regression equation all accumulated around score 4 (= neutral/no opinion). The score was somewhat influenced by social desirability (data not shown). Differences in satisfaction between pretest and post-test were marginal (answer to question 1). In all teams (both experimental and control) satisfaction increased slightly (on average 0.15 points on the seven-point scale), irrespective of whether RAP-TEAM was introduced or not. One experimental team showed a decrease in satisfaction (0.75 points).

The number of extraneous changes with regard to team conferences between pretest and post-test between

all teams was not statistically significant: $\chi^2 = 5.32$, d.f. = 6, $p = 0.50$.

USER EXPERIENCE WITH RAP-TEAM

Median judgement about RAP-TEAM ranged from 4 (insufficient) to 6 (sufficient) on the 10-point scale. The benefits and disadvantages reported are described in Table 1 (answer to question 2).

Discussion

The present study has failed to demonstrate an improvement of satisfaction with team conferences after the introduction of RAP-TEAM. Several factors may explain this finding.

The most important factor was probably the amount of time available. In the experimental rehabilitation teams the time available for the introduction may have been too short. Each professional received a training programme that took about 13 hours (including time for self-study). In retrospect, introduction of RAP-TEAM was a major operation, even in a single team. Acceptance of RAP-TEAM possibly requires a larger amount of time. Possibly we have forced the introduction too much. Davis *et al.*⁴ noticed in their study, in which an interdisciplinary approach was introduced in a rehabilitation centre: 'Rushing a process of change results in inefficiency, breakdown in communication, and general increased resistance' (p. 243). Resistance was, indeed, also present in the teams in which we introduced RAP-TEAM. We had the impression that some resistance was not only related to the speed of change, but also to the change as such. The degree of resistance differed substantially per professional. Perhaps positive effects of RAP-TEAM could have been demonstrated if the duration of the study had been (much) longer. It is suggested that these kind of major changes should be allowed 3–5 years before they become fully effective.⁴ The costs and methodology problems for such a long-lasting study would be prohibitively large.

Methodological problems with the present study were also considerable, but hardly avoidable. Threats to the internal validity, such as differences between rehabilitation centres, teams, characteristics of professionals, omission of randomization, etc. could also have been the reason why a positive effect of RAP-TEAM could not be demonstrated. Randomization is of use only if a large number of teams from different rehabilitation centres is available. Only then can it be expected that characteristics of teams, professionals, and centres will be

similarly divided over the experimental and control groups. Randomization of (similar) teams in a single rehabilitation centre is in theory possible, but one may expect with great certainty that control and experimental teams will influence each other. Therefore, in most cases for the kind of projects in which organizational changes in team work (e.g. team conferences) ought to be studied, a quasi-experimental design is the best choice available.¹⁹ With this kind of design, a number of threats to the internal validity must be ruled out by discussion of alternative explanations of the study results. For that purpose as much relevant information as possible should be gathered. In the present study we had information on five variables for the regression equations: gender, discipline, centre, team and social desirability. This was clearly insufficient because the first equation (pretest satisfaction) accounted for 30% of the variance, while the second equation (pre-post-test difference in satisfaction) accounted for 27% of the variance only. Obviously there must be other important variables that influence satisfaction with team conferences considerably, but which we did not measure.

One of the core concepts of RAP and RAP-TEAM is the concentration on disabilities and handicaps. Therefore, functions (especially psychological such as orientation, concentration, and intelligence) are not included in RAP-TEAM. However, many professionals found the absence of impairments to be an omission. The philosophy of rehabilitation medicine was repeatedly discussed with professionals, the aim of rehabilitation medicine being prevention, reduction and compensation of disabilities and handicaps. Reduction of impairments is not the ultimate goal of rehabilitation, and should therefore not be the subject of team conferences. Only in exceptional instances can impairments be of importance in team conferences. For instance, cognitive impairments may influence the treatment of a patient. Although most professionals endorse this philosophy, its practical application seems to be difficult. We also stressed that all forms allow the reporting of all additional text information that professionals consider to be important.

Professionals report that uniformity of language is one of the benefits of RAP-TEAM. Moreover, information about a patient's perceived problems (important for goal-setting) has also been mentioned as a benefit. Another benefit is formulation and attunement of rehabilitation goals which elicited a common viewpoint. However, after introduction of RAP-TEAM, we observed that a lot of professionals still had difficulties with the difference between disciplinary information (i.e. information that is of importance to a single discipline) and team information (i.e. information that is of

importance to all disciplines). Much too often, despite RAP-TEAM, professionals report disciplinary information, which is irrelevant to other professionals. Three reasons may account for this: (1) professionals are too inexperienced to aggregate information on disciplinary level to the level which is informative for the team; (2) indistinctness about the territory of a discipline can elicit a defensive attitude towards other disciplines; and (3) respect for the expertise and working methods of other disciplines may be (partly) absent. For a team and their conferences, these are serious problems which should be tackled if they come to light. Professionals should be willing to cooperate with each other, respect each other's expertise and responsibility, and be aware of the fact that a patient's interest dominates over their own.^{1,26} Maybe many problems with multidisciplinary teamwork could be attributed to predominance of peer approval.²⁷ Peer approval means that professionals predominately act in accordance with their own discipline. For instance, social workers behave and act in a way other social workers approve; that is how they are trained. The same goes for physicians, therapists, nurses, etc. Ideally, peer approval should be obtained from the team wherein professionals see each other as colleagues, and not as Fordyce²⁷ states as: 'dragon professions with whom we are often locked in semimortal combat' (p. 53). It is important to train professionals to obtain and maintain a team attitude; only then can the outcome of rehabilitation become more than just the sum total of individual efforts by a variety of single disciplines.²⁸ Besides this, only when a cohesive multidisciplinary team is present do innovative changes have a fair chance to succeed.

The most important disadvantage of RAP-TEAM mentioned in the experimental teams is the large quantity of forms and paper. Four different forms, in combination with a large amount of paper, was found to be confusing. In daily practice A- and D-forms were considered to be the most useful. Therefore, a solution could be to keep only A- and D-forms in a central patient record. During the present study the software for RAP-TEAM¹⁰ was not yet available. Therefore, forms were processed by hand. Manual cutting and pasting enabled new forms to be composed. The amount of paper will be reduced drastically if the software is installed on a computer network; thus, this disadvantage is expected to disappear, and probably professionals will then judge RAP-TEAM more positively. Nevertheless, optimal exchange of information (with written reports) remains a necessity. This administrative burden (as perceived by some professionals) is the consequence of dealing in multidisciplinary teams with patients who have multiple and complex impairments, disabilities and handicaps.

Professionals reported more benefits than disadvantages of RAP-TEAM (Table 1). These benefits could be reasons to introduce RAP-TEAM in team conferences. Another possible motivation for introduction of RAP-TEAM is its potential role as an outcome management method. For instance, RAP-TEAM could be used for programme evaluation to evaluate effectiveness and efficiency of rehabilitation programmes. The results can not only direct professionals' activities and benefit patients, they can also be utilized as an account to payment agencies. Further research, despite methodological problems,²⁹ could investigate this application of RAP-TEAM. Dependent variables are likely to be length of stay, cost of care, discharge environment, and functional status.

Recommendations

From our experiences reported in this preliminary study the following recommendations could be made.

- (1) Before introducing innovative changes make sure that teams are cohesive. Interprofessional rivalry should be diagnosed and treated beforehand. Meetings should be arranged in which the rehabilitation philosophy is discussed with all professionals, resulting in the same starting points for all. These sessions should be repeated at least twice a year. Through staff turnover basics of team cohesion may easily become obscured.
- (2) Prepare professionals and all people concerned to understand that a process of change is not easy and needs the long-lasting dedication of all. An important ingredient of this process is to analyse information needs of the team.
- (3) An introduction team should be formed with representatives of all professions, including administrative personnel and directional board. Such a team should guide the introduction of the change.
- (4) Changes should be introduced slowly, step by step. Acceptance of changes costs a lot of time! Make evaluations after each step within each profession and in the team as a whole.
- (5) A rehabilitation team is like a patient: it should not be treated passively, but it should be taught an understanding of its capacities and how to improve them.

Acknowledgements

We thank Rehabilitation Centres 'Amsterdam', 'Het Roessingh', and 'Den Haag', for their cooperation in the study. In particular we are

indebted to the following people (in alphabetical order): G. van Amerongen, H. H. J. van As, E. A. Badings, A. M. M. Carper, D. J. L. Eenkhoorn, A. C. Greive, E. Hardon, M. C. van Groningen, W. J. van der Heide, E. P. F. Janssen, M. G. van Keimpema, E. van Kessel, P. A. Koppe and G. C. Tijm. This publication is part of a research project, which is supported by a grant from the Dutch Ministry of Public Health, Welfare and Sport.

References

- 1 Darling LA, Ogg HL. Basic requirements for initiating an interdisciplinary process. *Physical Therapy* 1984; **64**: 1684-1686.
- 2 Keith RA. The comprehensive treatment team in rehabilitation. *Archives of Physical Medicine and Rehabilitation* 1991; **72**: 269-274.
- 3 Melvin JL. Status report on interdisciplinary medical rehabilitation. *Archives of Physical Medicine and Rehabilitation* 1989; **70**: 273-276.
- 4 Davis A, Davis S, Moss N, Marks J, McGrath J, Hovard L, Axon J, Wade D. First steps towards an interdisciplinary approach to rehabilitation. *Clinical Rehabilitation* 1992; **6**: 237-244.
- 5 Wanlass RL, Reutter SL, Kline AE. Communication among rehabilitation staff: 'mild', 'moderate', or 'severe' deficits? *Archives of Physical Medicine and Rehabilitation* 1992; **73**: 477-481.
- 6 Jelles F, Bennekom CAM van, Lankhorst GJ. The interdisciplinary team conference in rehabilitation medicine. *American Journal of Physical Medicine and Rehabilitation*. In press.
- 7 Rintala DH, Hanover D, Alexander JL, Sanson-Fisher RW, Willems EP, Halstead LS. Team care: an analysis of verbal behavior during patient rounds in a rehabilitation hospital. *Archives of Physical Medicine and Rehabilitation* 1986; **67**: 118-122.
- 8 Feiger SM, Schmitt MH. Collegiality in interdisciplinary health teams: its measurement and its effects. *Social Science and Medicine* 1979; **13A**: 217-229.
- 9 Halstead LS, Rintala DH, Kanellos M, Griffin B, Higgins L, Rheinecker S, Whiteside W, Healy JE. The innovative rehabilitation team: an experiment in teambuilding. *Archives of Physical Medicine and Rehabilitation* 1986; **67**: 357-361.
- 10 Revalidatie Activiteiten Profiel RAP-TEAM V1.0 (computer-programma). Arnhem: Vereniging Informatieverwerking Revalidatiecentra, 1994 [Rehabilitation Activities Profile RAP-TEAM V1.0 (computer program)].
- 11 Jelles F, Bennekom CAM van, Lankhorst GJ. Instruments to structure interdisciplinary team conferences in rehabilitation medicine: added value of the Rehabilitation Activities Profile. *Journal of Rehabilitation Sciences* 1995; **8**: 51-58.
- 12 Bennekom CAM van, Jelles F, Lankhorst GJ. *Revalidatie Activiteiten Profiel, handleiding en beschrijving*. Amsterdam: VU Uitgeverij, 1994 [Rehabilitation Activities Profile, manual and description].
- 13 Lankhorst GJ, Jelles F, Bennekom CAM van. *Rehabilitation Activities Profile, manual and description*. Amsterdam: VU University Press, 1995.
- 14 World Health Organization. *International Classification of Impairments, Disabilities, and Handicaps: a manual of classification relating to the consequences of disease*. Geneva: WHO, 1980.
- 15 Bennekom CAM van, Jelles F, Lankhorst GJ. Rehabilitation Activities Profile: the ICIDH as a framework for a problem-oriented assessment method in rehabilitation medicine. *Disability and Rehabilitation* 1995; **17**: 169-175.
- 16 Jelles F, Bennekom CAM van, Lankhorst GJ, Sibbel CJP, Bouter LM. Inter- and intra-rater agreement of the Rehabilitation Activities Profile. *Journal of Clinical Epidemiology* 1995; **48**: 407-416.
- 17 Bennekom CAM van, Jelles F, Lankhorst GJ, Bouter LM. The Rehabilitation Activities Profile: a validation of its use as disability index with stroke patients. *Archives of Physical Medicine and Rehabilitation* 1995; **76**: 501-507.
- 18 Bennekom CAM van, Jelles F, Lankhorst GJ, Bouter LM.

- Responsiveness of the Rehabilitation Activities Profile and the Barthel Index. *Journal of Clinical Epidemiology*. In press.
- 19 Cook TD, Campbell DT. *Quasi-experimentation: design & analysis issues for field settings*. Boston: Houghton Mifflin, 1979.
- 20 Jelles F, Bennekom CAM van, Lankhorst GJ, Bouter LM. Staff satisfaction with team conferences: development of a questionnaire. *Clinical Rehabilitation*. 1996; **10**: 49-57.
- 21 Streiner DL, Norman GR. *Health Measurement Scales: a practical guide to their development and use*. Oxford: Oxford University Press, 1992.
- 22 Crowne DP, Marlowe D. *The Approval Motive: Studies in evaluative dependence*. New York: Wiley, 1964.
- 23 Crowne DP, Marlowe D. A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology* 1960; **24**: 349-354.
- 24 Hermans H. *Motivatie en prestatie* (academisch proefschrift). Amsterdam: Swets & Zeitlinger, 1967 [Motivation and performance (dissertation)].
- 25 Dixon WJ, Brown MB, Engelman L, Jennrich RI. *BMDP Statistical Software Manual*. Berkeley: University of California Press, 1990.
- 26 Rothberg JS. The rehabilitation team: future direction. *Archives of Physical Medicine and Rehabilitation* 1981; **62**: 407-410.
- 27 Fordyce WE. On interdisciplinary peers. *Archives of Physical Medicine and Rehabilitation* 1981; **62**: 51-53.
- 28 Melvin JL. Interdisciplinary and multidisciplinary activities and the ACRM. *Archives of Physical Medicine and Rehabilitation* 1980; **61**: 379-380.
- 29 Schmitt MH, Farrell MP, Heinemann GD. Conceptual and methodological problems in studying the effects of interdisciplinary geriatric teams. *Gerontologist* 1988; **28**: 753-764.