Miriam Wanner[a], Eva Martin-Diener[a], Christine Popp[a], Kurt Röthlisberger[b], Beat Ackermann[a], Brian W. Martin[a,c]

[a] Swiss Federal Institute of Sport Magglingen, Switzerland
[b] AARAU eusi gsund Stadt, Aarau, Switzerland
[c] Institute of Social and Preventive Medicine, University of Zurich, Switzerland

A semiautomated web-based approach for routine evaluation of physical activity courses

Abstract

Routine course evaluation within the nationwide physical activity promotion programme Allez Hop was introduced to monitor and optimise the programme. A semiautomated web-based system was developed to collect, store, analyse and disseminate data. The system was pilot-tested in the canton of Aargau in 2006 with strong encouragement of course instructors to participate in the evaluation. It was also openly available to Allez Hop instructors from mid-2007 until the end of 2008 with no specific measures to encourage participation. Feasibility was good in both settings. 65% of courses participated during the pilot phase and 1% of courses during the open phase, indicating that encouragement of course instructors is needed to increase participation in the evaluation.

Key words
Internet, web, Allez Hop, Switzerland, adults, physical activity promotion

Zusammenfassung

Im nationalen Bewegungsförderungsprogramm Allez Hop wurden routinemässige Kursevaluationen eingeführt, um das Programm zu optimieren. Für die Sammlung, Speicherung, Auswertung und Kommunikation der Daten wurde ein halbautomatisiertes, internetbasiertes System entwickelt. In einer Pilotphase wurde dieses System in Bewegungskursen im Kanton Aargau im Jahr 2006 eingesetzt. Alle Kursleitenden wurden ausdrücklich ermuntert, an der Evaluation teilzunehmen. Zwischen Mitte 2007 und Ende 2008 stand das System ausserdem den Allez-Hop-Leitenden zur Verfügung, ohne dass zu einer Teilnahme speziell ermuntert wurde. Die Machbarkeit war gut. Während der Pilotphase nahmen 65% der Kurse teil, zwischen 2007 und 2008 nur 1% der Kurse. Dies deutet darauf hin, dass eine ausdrückliche Ermunterung der Kursleitenden wichtig ist, um die Teilnahme zu erhöhen.

Schweizerische Zeitschrift für «Sportmedizin und Sporttraumatologie» 57 (2), 93–95, 2009

Introduction

Interventions targeting individuals in community settings are effective in producing short-term changes in physical activity (Hillsdon et al., 2005). Longer-term changes in behaviour may be achieved with interventions that promote moderate intensity physical activity, particularly walking, and that are not facility-dependent (Hillsdon et al., 2005). Such an approach in Switzerland is Allez Hop, a nationwide campaign to promote physical activity among insufficiently active individuals launched in 1997 by three Swiss health insurance companies and the Swiss Olympic Association (Stamm et al., 2001). The core of the program were inexpensive local physical activity courses (e.g. Nordic walking, running, water gymnastics) offered by qualified Allez Hop instructors once a week for about 10 weeks. From 2003 on, a joint contract between the Federal Office of Sport, Health Promotion Switzerland, the Swiss Olympic Association and Santésuisse (the governing body of the Swiss health care insurance companies) ensured the continuation of Allez Hop. At the end of 2008, Allez Hop was transferred to the new concept "Erwachsenensport" ("Sport for adults"), which combines different programmes for adults including senior sport offers.

Evaluation plays an important role for further development and optimisation of population-based physical activity promotion programmes. Routine course evaluations within the programme Allez Hop were introduced with the aim to monitor course participants' characteristics as well as their expectations and satisfaction, and thus ensure a high quality of the programme. A semiautomated web-based system was developed to facilitate data assessment, storage, and analysis. Furthermore, the system was designed to produce separate analyses of single courses and to combine these results in a comprehensive feedback report which can be sent to each course instructor by e-mail. Such a feedback report may increase participation in these evaluations. In 2006, the system was first used in the campaign "Der Aargau bewegt sich" ("Aargau is moving") with strong encouragement of course instructors to participate in the evaluation. From mid-2007 until the end of 2008, the system was open to all Allez Hop instructors in the German-speaking part of Switzerland via the Allez Hop course registration website. No specific measures were introduced to encourage participation.

The aim of the present publication is to compare data assessed between 2007 and 2008 when the system was routinely available to Allez Hop instructors in the German-speaking part of Switzerland with data assessed during the pilot phase in the canton of Aargau in 2006. It was of interest how much the course evaluation was used by Allez Hop instructors from mid-2007 on and whether optional participation in the course evaluation yielded results comparable to those obtained during the pilot testing.

Methods

Semiautomated web-based evaluation system

During the pilot phase, course instructors willing to participate in the evaluation were provided with the required number of questionnaire sets including a title page explaining the evaluation, a pre-course questionnaire and a post-course questionnaire. Instructors completed the questionnaires with their course participants before and after the course. Completed questionnaires were returned by mail and were scanned. A course-specific, automated feedback report was generated for each single course and sent to the respective instructor by e-mail. The report contained information on the characteristics of the course participants, their physical activity levels, their expectations before the course and their satisfaction after the course.

From mid-2007 on, participation in the evaluation was openly available to Allez Hop course instructors in the German-speaking part of Switzerland. When registering their courses on the Allez Hop website, instructors had the possibility to order the evaluation questionnaire sets by selecting the questionnaire option in a list of Allez Hop course materials. The requested number of questionnaire sets was automatically generated with a course number and a unique participant's identification number. An automated e-mail with the attached questionnaires was released to the print office of the Federal Office of Sport. Together with other course material, the printed questionnaires were sent to the instructors by mail before the beginning of the course. From there on the procedure continued as described above for the pilot phase.

Settings, recruitment and response

During pilot testing in 2006, all course instructors of the campaign "Der Aargau bewegt sich" were asked to participate in the course evaluations. Of around 80 courses with almost 1400 participants, 52 courses (65%) participated including a total of 861 participants (as declared by the instructors). Of those, 805 (93.5%) completed the pre-course questionnaire at the start of the course. 557 participants completed both pre- and post-course questionnaires corresponding to a response of 64.7%.

In the time period when the semi-automated course evaluation system was openly available to Allez Hop course instructors (mid-2007 until the end of 2008), around 2000 Allez Hop courses were registered in the German-speaking part of Switzerland. Of those, 104 instructors ordered the questionnaire sets (5.2%), and valid questionnaires were sent back for 21 courses (20.2%). Pre-course questionnaires were returned for 129 individuals, 114 of them also had a valid post-course questionnaire (88.4%). In total, around 1% of the courses participated in the course evaluations.

Results

Description of courses and characteristics of the respondents

Of the 52 courses in the pilot phase, 50.0% were offering Nordic walking, 34.6% running, and 5.8% walking. The course discipline was not specified for 9.6% of courses. Of the 21 courses participating in 2007/08, 81.0% were offering Nordic walking, 14.3% running and 4.8% water gymnastic.

Mean age of participants was 46.5 (±11.6) years in the pilot phase and the proportion of women was 80.9%. In 2007/08, mean age was also 46.5 (±11.8) years and the proportion of women was 85.1%. *Table 1* displays physical activity levels (including those individuals with valid pre- and post-course data) according to the five-level indicator generally used in Switzerland (Lamprecht and Stamm, 2006). Trained and regularly active individuals are considered as sufficiently active.

	Pilot phase		2007/08	
	pre-course	post-course	pre-course	post-course
trained (≥20 min of vigorous intensity activities on ≥3 days/week)	38.6%	50.0%	27.1%	32.3%
regularly active (≥30 min of moderate intensity activities on ≥5 days/week)	4.7%	4.1%	7.3%	9.4%
irregularly active (≥150 min of moderate intensity activities per week or ≥20 min of vigorous intensity activities on 2 days/week)	40.1%	38.6%	37.5%	40.6%
partially active (≥30 min of moderate intensity activities per week or ≥20 min of vigorous activities on 1 day/week)	12.2%	6.2%	25.0%	15.6%
inactive (minimal or no activities)	4.3%	1.1%	3.1%	2.1%
N	466	466	96	96
sufficiently active (trained or regularly active)	**43.3%**	**54.1%**	**34.4%**	**41.7%**

Table 1: Physical activity levels during the pilot phase and in 2007/08 before and after the courses

Course expectations and course satisfaction

At the end of the courses, participants could agree or disagree with a number of items regarding their course. The following proportions are based on those participants completely or rather agreeing: 96.4% of participants both during the pilot phase and in 2007/08 were generally satisfied with their course; 95.6% (pilot phase) and 99.1% (2007/08) found that the course organisation was good; 95.4% (pilot phase) and 97.4% (2007/08) stated that the course instructor responded well to their needs and interests; 97.1% (pilot phase) and 98.2% (2007/08) found that the atmosphere in the course was pleasant.

Course expectations at the beginning of the courses were generally high. *Figure 1* compares the expectations at the beginning of the courses with the satisfaction at the end of the courses (including those individuals with valid pre- and post-course data), both for the pilot phase and the courses in 2007/08. In general, the expectations were met; however, regarding well-being and physical discomfort, expectations were slightly higher than the satisfaction at the end of the courses.

Conclusions

In general, the feasibility of the semiautomated web-based system for routine evaluation of physical activity courses was good in both the pilot phase and the open-phase setting. While encouragement of participation during the pilot phase yielded in two thirds of course instructors taking part in the course evaluations, participation was very low in 2007/08 when the system was openly available to Allez Hop instructors with no specific measures to encourage participation. Only one out of twenty Allez Hop instructors requested the questionnaire sets, and only one fifth of them also returned the questionnaires for scanning and analysing. Thus only around 1% of eligible Allez Hop courses have been evaluated between mid-2007 and the end of 2008 using the semi-automated course evaluation system. This number is very low and far below expectations. One reason for the low return rate may be that some instructors requested all possible course materials when registering their courses instead of making a selection of those items they were going to use. Furthermore, a pre-paid envelope for returning the questionnaires was only enclosed during the pilot phase.

The results obtained in the courses between 2007 and 2008, when the system was openly available to Allez Hop course instruc-

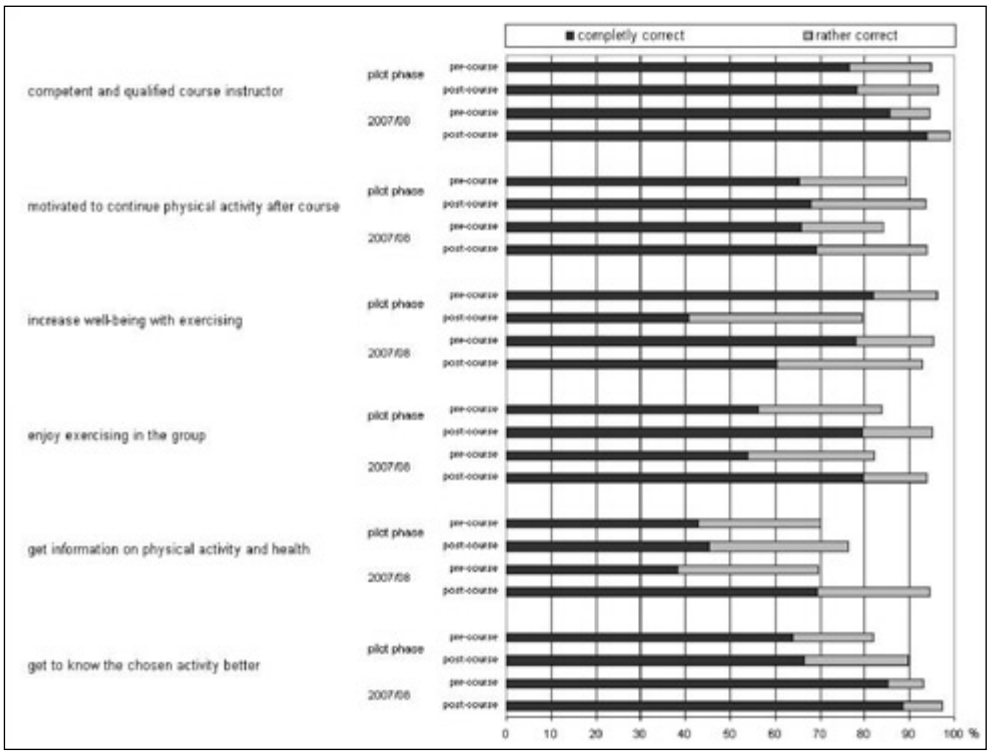

Figure 1: Comparison of expectations (pre-course) and satisfaction (post-course) of different aspects during the pilot phase in 2006 and in 2007/08

tors, compared well with data obtained during the pilot phase in the canton of Aargau in 2006, despite the large difference in participation rate. Furthermore, similar results have been reported in earlier course evaluations (Egger et al., 2006). This may indicate that the motivation of the course instructors to participate in the course evaluations does not influence the data obtained from their courses, and no selection bias has to be expected.

The courses generally succeeded in reaching a substantial proportion of irregularly active and partially active participants. Even though the expectations were high at the beginning of the courses, most participants were satisfied with their courses. Physical activity levels were higher during the pilot phase than in 2007/08, however, in both periods they increased from the beginning of the courses until the end.

Since the transfer of Allez Hop to "Sport for adults" it remains open how the semiautomated system may be incorporated in the new concept. In general, evaluation may play an important role at this stage in order to monitor the transfer to the new concept and its potential consequences. Thus, the semi-automated web-based system may be a useful tool for routine course evaluations in "Sport for adult" courses. However, action will need to be taken to encourage more instructors to participate in the course evaluations and to return the questionnaires. More information and promotion may help to explain the advantages of participation, such as the personal course feedback and indications for maintaining a high quality of courses. For example, the system may be explained to course instructors in a newsletter, and more information may be provided on the website where the questionnaires can be ordered.

In conclusion, a semiautomated, web-based approach proved feasible for collecting, storing, analysing and disseminating standardised data of routine course evaluations in order to optimise and monitor a large, population-based intervention promoting physical activity. Once such a system has been developed, cost for additional data management is low. However, it remains a challenge to encourage course instructors to use such a service when openly available.

Address for correspondence:

Miriam Wanner, Swiss Federal Institute of Sport Magglingen, Brésil, Alpenstrasse 21+23, CH-2532 Magglingen, Switzerland, Phone: +41 32 327 6138, Fax: +41 32 327 6404
E-mail: Miriam.Wanner@baspo.admin.ch

References

Egger I., Reuter H., Bauer G. (2006): Evaluation des Programms Allez Hop (2004-2006): Schlussbericht Juli 2006. Zurich: Institute of Social and Preventive Medicine, University of Zurich.

Hillsdon M., Foster C., Cavill N., Crombie H., Naidoo B. (2005): The effectiveness of public health interventions for increasing physical activity among adults: a review of reviews: Evidence briefing, pp. 1–37. London: Health Development Agency.

Lamprecht M., Stamm H.P. (2006): Bewegung, Sport, Gesundheit. Fakten und Trends aus den Schweizerischen Gesundheitsbefragungen 1992, 1997 und 2002. In Statsanté. Resultate zu den Gesundheitsstatistiken in der Schweiz, pp. 1–26. Neuchâtel: Swiss Federal Statistical Office.

Stamm H., Lamprecht M., Somaini B., Peters M. (2001): "Getting Switzerland to move": evaluation of a new "Sport for All" programme. Soz. Präventivmed. 46, 20–28.