

A Recovery-Oriented Approach for an Acute Psychiatric Ward: Is It Feasible and How Does It Affect Staff Satisfaction?

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Abstract To evaluate professionals' attitudes to recovery and coercion, as well their satisfaction with working conditions before and after the implementation of a recovery-oriented ward concept on an admission ward. Longitudinal study design with two measurement times of the study sample, with a control group assessed at study end. Evaluating the implementation of the recovery concept, attitudes towards recovery, coercion, perceptions of the ward and working satisfaction were assessed with questionnaires and computed using Chi square and ANOVA variance analyses. The members of the intervention ward ($n = 17$) did not differ from the control group ($n = 21$), except that control group members were younger. The recovery-orientation of the study ward (ROSE questionnaire) increased significantly (alpha level = 0.05) from study begin to study end ($p = 0.003$), and compared to the control group ($p = 0.002$). The attitudes towards coercion did not change significantly in the intervention group, but did so compared to the control group. The contentedness (GMI) and the satisfaction with working conditions (ABB) of the intervention group members compared to control group was significantly higher (GMI: $p = 0.004$, ABB subscale working conditions: $p = 0.043$, satisfaction: $p = 0.023$). The study indicates that recovery-oriented principles can be implemented even in an acute admission ward, increasing team satisfaction with work, while attitudes towards coercion did not change significantly within this single-unit project.

Keywords Recovery · Psychiatric admission ward · Working satisfaction

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Background

Along with a growing demand for more patient-orientated, individual treatment involving the people concerned there has been a change in treatment processes and structures in psychiatric institutions towards recovery-oriented practice [1, 2]. The recovery-oriented approach of mental health services stands for a change in roles, values and attitudes on the part of health professionals: from an expert-role to a supporting and accompanying partnership; from a paternalistic, rather deficit-orientated attitude towards a psychiatric service where structures and professional attitudes are transparent, health-orientated, and client-autonomy enhancing [3, 4]. A patient-oriented treatment offers transparent forms of communication, for example accordant decision-making-models [5], and the fostering of an optimistic, hopeful and supportive attitude [6]. The consideration of the users' perspective in the context of structures and processes is an important element of the concept of recovery [7, 8], which in the context of mental illness therefore accounts not only for the attitude of professionals, but also for the treatment structures of health services [4, 9]. Moreover, psychiatric services with a recovery-oriented treatment offer on the one hand evidence-based treatments, and on the other, treatments that are subjectively felt to be effective [4].

The implementation of the recovery concept in health services is discussed controversially [7, 10, 11], and there are inconsistent results concerning instruments for measuring a service's level of recovery orientation [12]. To support the implementation of a recovery-oriented practice, regional as well as national manuals were developed, for example the guidelines of the American Association of Community Psychiatrists [13]. In their qualitative analysis of 15 international practice guidelines Le Boutillier et al. [11] structured the recovery-relevant themes into four key domains: promoting citizenship, organizational commitment, supporting personally defined recovery, and working relationship. But more and more discussion has focussed on one of the largest stumbling blocks on the way towards recovery orientation in an acute inpatient setting, namely, the reality of involuntary admissions and measures of constraint [14, 15]. Both are mainly a task of psychiatric hospitals rather than of psychiatric services in community settings. Consequently, implementation of recovery-oriented practice is better known in outpatient settings and has been more often the target of evaluations there [16]. The staff's recovery orientation has been shown to be higher in outpatient settings than in inpatient services [17–19]. But it has also been shown that a recovery-relevant attitude of staff members can be altered positively with 2 days' training [20, 21] or even with a single training session [22].

The aim of this study was to evaluate professionals' attitudes towards recovery and coercion as well as their satisfaction with working circumstances and the ward atmosphere before and after the implementation of a recovery-oriented ward concept on an admission ward. The recovery-oriented approach used here was developed following the guidelines of the American Association of Community Psychiatrists [13]. Structures of reports and consultations were changed, an individual goal setting was implemented, and the staff of the ward was informed and trained concerning the recovery concept.

Implementation of Recovery-Orientation in an Admission Ward

At the beginning of the study period (September 2011) the structure of reports and ward rounds were changed with the intention of increasing transparency by involving patients

and their family members. In detail the timeframe of reports without the patients were reduced by 50 % to 15-min daily briefings on workday mornings. Individual goal setting and therapy planning for the stay in the psychiatric service was implemented, written together by members of the interdisciplinary team and the patient. The written planning was evaluated together regularly. The total time spent on staff discussion without the presence of the patient concerned was reduced from 210 to 75 min per week. Besides these structural modifications the members of the multidisciplinary study ward team were trained in theoretical and practical issues concerning recovery. Furthermore an external expert on recovery orientation (a psychologist) conducted a three-day training, which consisted of relevant aspects and questions in the implementation phase.

The intervention ward is an acute admission ward. Its door is often open but closeable when necessary. The ward comprises one- to three-bed rooms and one seclusion room. It can treat up to 16 patients with any kind of a psychiatric diagnosis. In the year 2012, the largest groups of patients were suffering from a schizophrenic disorder (44 %), a substance related disorder (25 %) or an affective disorder (16 %). The average duration of stay was 25 days, and 50 % of the patients were admitted involuntarily.

Methods

Study Design and Sample

A longitudinal study design was chosen, with two measurement times (t_0 before the implementation, t_1 after recovery training) of the study sample over one year, from September 2011 to October 2012. A control group was recruited as a convenience sample from three control wards due to their comparability of patients, number of beds and seclusion rooms as well their professionals, and assessed at t_1 using the same instruments.

The intervention group sample consists of the multidisciplinary team members of the intervention ward, which involves nurses (=15 full-time staff), physicians (300 %), social workers (40 %) and occupational-, vocational- and physio-therapists (120 %). There was no criterion for exclusion. After receiving information about the study the participants signed written informed consent. Participation was voluntary. Each participant could randomly choose a personal number that was blinded to other participants as well as to the researchers. The number remained valid during the entire study. The ethics commission of the concerning state approved the study.

Instruments

To measure the parameters related to the recovery relevant attitudes of the team members the following instruments were used. Their internal consistency was assessed with Cronbach's alpha. In order to measure their contentedness with the work the Good Milieu Index, GMI [23], containing 5 items on a 4-point Likert scale (ranging from 0 to 3, $\alpha = 0.675$), and the ABB [24], also with 5 items, 2 of them on a 4-point Likert scale (ranging from 0 to 3) and 3 of them on a 7-point vision scale were used. To assess the level of the recovery attitudes the Recovery Attitudes Questionnaire, RAQ-7 [25] with 7 items on a 5-point Likert scale (ranging from 0 to 4, $\alpha = 0.653$) was chosen. The two subscales of RAQ-7 (Recovery is possible, Recovery is difficult and needs faith) were not further computed due to their poor alpha-values ($\alpha < 0.6$), [26]. In order to assess attitudes towards coercion the Staff Attitude Coercion Scale SACS [27] with 15 items on a

5-point Likert scale was used ($\alpha = 0.648$). Here too, its 3 subscales (coercion as offending, coercion as care and security, and coercion as treatment) were not further included ($\alpha < 0.6$). For the perception of the wards' atmosphere the Essen Climate Evaluation Scheme, Essen CES [28] with 3 subscales (patient cohesion, safety, and therapeutic hold) and 17 items on a 5-point Likert scale (range from 0 to 4, $\alpha = 0.714$), and of the wards' level of recovery orientation the Recovery Oriented Service Evaluation, AACRP Rose [29] with 4 subscales (administration, treatment, supports, organizational culture), and 46 items on a 5-point Likert scale were used (range from 0 to 4, $\alpha = 0.963$). The psychosocial burden of the participants was assessed using the Symptom Check List SCL-10 [30] with 10 items on a 5-point Likert scale (from 0 to 4, $\alpha = 0.732$). Additionally, sociodemographic data, i.e. age, sex, working experience (years, type of psychiatric settings), absence (illness, holidays) were collected.

Statistical Analyses

To reveal whether the attitudes of the members of the intervention group change over study time ($t_0 - t_1$), and differ compared to the control group, categorical demographic variables were computed with Chi square test. The differences for continuous variables, assessed by means, were computed with ANOVA variance analyses. The distributions of the scales were tested with Q–Q-plots, skewness and kurtosis. They were normally distributed, except one out of two subscales of questionnaire RAQ 7, which was analyzed using non-parametric tests. A level of significance was set at $p = 0.05$ (two-tailed). All data were analyzed with the SPSS, Version 20 (Statistical Package for the Social Sciences, IBM Corporation, 2011).

Results

Demographics

The study sample consisted of staff members of the intervention ward (intervention group) and the control sample of staff members of three comparison wards (control group). The study sample at t_0 consisted of 16, and at t_1 of 17 respondents, of whom 7 participated at both time points. The control sample comprised 21 participants (Table 1).

The demographic variables of the staff-members from the intervention ward did not change significantly from the beginning to the end of the study time one year later. Only the variables absence due to holidays or illness showed significant differences between the groups, indicating that the team members were more often absent due to holidays and/or illness at the end of the study than at its beginning (Table 1).

The staff members of the intervention group and the members of the control group did not differ significantly in the demographic variables sex, profession, years of professional experience, absence due to holidays or illness, and previous work setting in a psychiatric institution (Table 1). They did differ significantly concerning the variable age, since the control group had more young staff members aged between 18 and 25 years, and the variable days of work presence (Table 1). Almost none of the professionals of any ward had previous experience in working in an outpatient setting nor did they have experience in a day hospital, home care or other setting.

Table 1 Demographics and working experience of intervention group (IG) and control group (CG), comparisons with Chi square test (χ^2) between IG before and after the intervention, and between IG and CG

Variables	IG T ₀ (n = 16) n (% in groups)	IG T ₁ (n = 17) (% in groups)	CG (n = 21) (% in groups)	IG T ₀ – T ₁ : χ^2 ; df (p value)	IG T ₁ – CG df (p value)
Age				1.257; 3 (0.739)	8.006; 3 (0.046*)
18–25	1 (7)	0 (0)	7 (37)		
26–35	6 (37)	8 (47)	5 (26)		
36–45	6 (37)	6 (35)	4 (21)		
46–55	3 (19)	3 (18)	3 (16)		
56–65	0 (0)	0 (0)	0 (0)		
Sex				0.005; 1 (0.946)	0.139; 1 (0.709)
Female	9 (60)	10 (59)	10 (53)		
Male	6 (40)	7 (41)	9 (47)		
Profession/function				0.346; 3 (0.951)	6.197; 3 (0.102)
Nurse	8 (53)	7 (44)	15 (79)		
Physician	2 (13)	3 (19)	0 (0)		
Occupational-, vocational-, physio-therapist or social worker	4 (27)	5 (31)	3 (16)		
Nurse assistant	1 (7)	1 (6)	1 (5)		
Years of professional experience				2.191; 4 (0.701)	5.179; 4 (0.269)
<5	6 (37)	9 (52)	6 (30)		
6–10	5 (31)	2 (12)	2 (10)		
11–15	2 (13)	2 (12)	9 (45)		
16–20	2 (13)	2 (12)	1 (5)		
>20	1 (6)	2 (12)	2 (10)		
Days of work presence the last 4 months				1.012; 1 (0.314)	8.382; 3 (0.039*)
0	0 (0)	0 (0)	1 (5)		
<30	0 (0)	0 (0)	6 (32)		
31–60	7 (47)	5 (29)	2 (10)		
>60	8 (53)	12 (71)	10 (53)		

Table 1 continued

Variables	IG T ₀ (<i>n</i> = 16) <i>n</i> (% in groups)	IG T ₁ (<i>n</i> = 17) (% in groups)	CG (<i>n</i> = 21) (% in groups)	IG T ₀ – T ₁ : χ^2 ; df (<i>p</i> value)	IG T ₁ – CG χ^2 ; df (<i>p</i> value)
Holidays at least 1 week during the last 4 months					
No	10 (77)	3 (21)	8 (42)	8.315; 1 (0.004**)	1.551; 1 (0.213)
Yes	3 (23)	11 (79)	11 (58)		
Illness at least 1 week during the last 4 months					
No	4 (36)	9 (90)	12 (75)	6.390; 1 (0.011*)	0.891; 1 (0.345)
Yes	7 (64)	1 (10)	4 (25)		
Previous (psychiatric) work					
Acute closed/part. open ward					
No	2 (12)	1 (6)	5 (25)	0.437; 1 (0.509)	2.472; 1 (0.116)
Yes	14 (88)	16 (94)	15 (75)		
Open/special ward					
No	8 (50)	7 (41)	13 (65)	0.259; 1 (0.611)	2.100; 1 (0.147)
Yes	8 (50)	10 (59)	7 (35)		
Day hospital					
No	14 (88)	13 (76)	17 (85)	0.674; 1 (0.412)	0.436; 1 (0.509)
Yes	2 (12)	4 (24)	3 (15)		
Outpatient					
No	15 (94)	17 (100)	20 (100)	1.096; 1 (0.295)	–
Yes	1 (6)	0 (0)	0 (0)		
Home care					
No	15 (94)	14 (82)	19 (95)	1.005; 1 (0.316)	1.524; 1 (0.217)
Yes	1 (6)	3 (18)	1 (5)		
Others					
No	13 (81)	16 (94)	14 (70)	1.281; 1 (0.258)	3.484; 1 (0.062)
Yes	3 (18)	1 (6)	6 (30)		

* *p* < 0.05; ** *p* < 0.01

Results of Intervention Group Evaluation at Start Compared to End of the Study

The assessment of the recovery-orientation of the study ward by the members of the intervention group at the beginning (t_0) of the study compared to them at the end of study (t_1) revealed that the ward gained in its recovery orientation: the means of the overall questionnaire ROSE increased significantly, as did its subscale, treatments', supports' and, organizational culture'. The subscale, administration' did not change (Table 2). Satisfaction with the ward as a workplace and with the work itself tended to improve among staff during the study (GMI overall, several items of GMI and ABB; Table 2). Attitudes towards recovery (RAQ-7) as well towards coercion (SACS) did not change significantly over the study time. Also, perception of ward atmosphere (CES) did not alter significantly from the beginning of the study to the measurement point a year later.

The differences in the single items of the ROSE scale before and after the study time were compared (ANOVA) in order to shed light on details of the ward changes during the study intervention (Table 3). Single items of the subscale, administration' were omitted in Table 3 because the subscale did not change significantly. Most items of the other subscales significantly improved during the study period (Table 3).

Results of Intervention Group Compared to Control Group

A number of instruments used in the evaluation revealed significant differences between the intervention group and the control group (Table 2). The attitudes towards recovery (RAQ 7) in general were more positive in the intervention group. Like the assessment of the ward's recovery-orientation (ROSE total score and subscales treatments, supports and organizational culture) was higher on the intervention ward than on the control wards, with the exception of the subscale administration (Table 2). Two of three subscales of the questionnaire CES showed a more positive perception of the intervention ward's atmosphere. The contentedness of the members of the intervention ward compared to control wards was significantly higher. Also satisfaction with working conditions was significantly higher (GMI, ABB; Table 2).

Discussion

The study at hand aimed to analyse the implementation of a recovery-oriented concept within an acute inpatient setting. Since recovery-oriented services are more commonly established in outpatient settings the goal of this clinical research was to evaluate if and how the implementation of a recovery-oriented concept on an admission ward would be reflected in various measures assessed by staff of different professions.

The main results are that staff rated the recovery orientation of the study ward after the intervention higher on all counts than before the intervention as well as compared to the control group. Moreover, staff rated some aspects of work satisfaction higher both after the implementation of the new concept and compared to the control wards. The implementation of the concept had no influence on attitudes towards (personal) recovery itself or towards coercion. However, the intervention group had more positive attitudes towards recovery as well as more positive views on ward atmosphere after the intervention compared to the control group.

The intended alterations on the ward towards recovery-orientation are reflected in professionals' evaluation of the ROSE questionnaire. Considerable changes in the desired

Table 2 Comparison of means (ANOVA) between intervention group (IG) before and after the intervention, and between IG and control group (CG)

Instrument	Means IG		Means CG	F values (<i>p</i> values) IG T ₀ – T ₁		F values (<i>p</i> values) IG T ₁ – CG	
	T ₀	T ₁					
RAQ 7	3.5982	3.5462	3.2714	0.191 (0.665)	5.123 (0.030*)		
ROSE	2.0065	2.7115	2.0536	10.204 (0.003**)	12.048 (0.002**)		
ROSE: administration	1.3721	1.8761	1.3870	1.961 (0.172)	1.849 (0.184)		
ROSE: treatments	2.4820	3.1565	2.3811	10.760 (0.003**)	24.036 (0.000**)		
ROSE: supports	1.6521	2.4832	1.8938	9.870 (0.004**)	8.475 (0.007**)		
ROSE: organizational culture	2.6222	3.2843	2.5529	8.450 (0.007**)	16.421 (0.000**)		
SACS	1.9988	1.9961	2.0864	0.000 (0.986)	0.412 (0.525)		
CES	2.3786	2.4471	2.2667	0.172 (0.681)	1.995 (0.167)		
CES: patient cohesion	2.5385	2.4941	2.0105	0.051 (0.823)	7.215 (0.011*)		
CES: safety	1.9625	2.0118	2.4000	0.019 (0.891)	1.673 (0.205)		
CES: therapeutic hold	2.6500	2.8353	2.3895	1.968 (0.171)	19.086 (0.000**)		
GMI	2.2750	2.5059	2.1200	3.339 (0.077)	9.576 (0.004**)		
In general, how satisfied are you with this ward?	2.38	2.65	2.10	2.478 (0.126)	9.941 (0.003*)		
In general, how much do you like the patients on this ward?	2.31	2.29	2.10	0.012 (0.912)	2.274 (0.141)		
In general, how much do you like the staff on this ward?	2.56	2.65	2.25	0.234 (0.632)	4.359 (0.044*)		
In general, does what you do on the ward give you a chance to see how good your abilities really are?	2.13	2.23	2.25	2.988 (0.094)	1.571 (0.218)		
In general, does what you do on the ward help you to have more confidence in yourself?	2.00	1.41	1.90	3.069 (0.090)	4.701 (0.037*)		
ABB	1.7250	1.9412	1.7600	1.851 (0.183)	1.053 (0.312)		
Working conditions	2.3854	2.500	2.2167	0.545 (0.466)	4.422 (0.043*)		
In general, how satisfied are you with the working conditions?	4.00	4.71	4.10	2.312 (0.139)	2.300 (0.138)		
Altogether: how satisfied are you with your work?	3.75	4.76	4.00	5.474 (0.026*)	5.689 (0.023*)		

Table 2 continued

Instrument	Means IG		Means CG	F values (<i>p</i> values) IG T ₀ – T ₁	F values (<i>p</i> values) IG T ₁ – CG
	T ₀	T ₁			
Considering everything playing a role in your work: how content are you with your place of work?	3.88	4.71	4.10	3.896 (0.057)	3.342 (0.076)
SCL	0.4625	0.3137	0.3750	1.547 (0.223)	0.354 (0.556)

* *p* < 0.05; ** *p* < 0.01

Table 3 Comparison of means (ANOVA) between intervention group (IG) before and after the intervention of single items of the ROSE questionnaire (items of subscale administration omitted)

Single items of AACP ROSE-recovery oriented services evaluation	Means IG		F values IG	p values IG
	T ₀	T ₁	T ₀ – T ₁	T ₀ – T ₁
Treatment				
There is comprehensive array of services available to meet all identified needs	2.33	2.82	2.901	0.099
All clinical services encourage the use of self-management principles	2.25	2.88	6.920	0.013*
Advance directives/crisis plans are encouraged and respected by the organization	2.25	3.18	9.344	0.005*
A process is in place to assist service users to develop advance directives	2.07	3.12	7.195	0.012*
A process is in place to assure review and implement advance directives during periods of incapacitation	1.64	3.06	15.855	0.000***
Organization is sensitive to cultural issues and provides services that meet cultural needs	1.81	2.53	3.396	0.075
Staffing patterns reflect community's ethnic/racial/linguistic profile	2.14	2.65	1.298	0.264
Treatment planning is a collaborative process between service users and providers	2.56	3.53	16.855	0.000***
Service users are provided with adequate information about service options to make decisions regarding their service plans	2.56	3.31	5.320	0.028*
Choices made by service users are respected by providers	2.75	3.35	5.502	0.026*
Recovery management plans are developed that emphasize individual strengths and choice	2.13	3.29	16.412	0.000***
A screening process is in place to assure detection of co-occurring disorders	2.71	3.38	6.248	0.019*
Organization meets competency standards for treating persons with co-occurring disorders	3.07	3.24	0.499	0.486
Co-occurring disorders are treated at the same time and by the same clinicians	2.43	3.12	4.558	0.041*
Organization has program to reduce or eliminate the use of coercive treatment	2.46	3.19	2.573	0.120
Attempts are made to engage and empower persons on involuntary treatment status	2.80	3.41	2.932	0.097
Staff has been adequately trained to de-escalate volatile situations and to avoid seclusion and restraint	3.53	3.47	0.059	0.810
Debriefing occurs following all episodes of seclusion or restraint if it must be used	2.69	3.35	3.142	0.087
Supports				
Organization facilitates service user participation and leadership in advocacy and peer support efforts/organizations	1.38	2.53	7.096	0.012*
Organization has an active liaison with local advocacy and peer support groups	1.25	2.25	6.667	0.015*
Service users consistently indicate satisfaction with access to services	1.19	2.41	8.999	0.005**
Family members are engaged and educated to support recovery efforts	1.25	2.24	5.161	0.030*

Table 3 continued

Single items of AACP ROSE-recovery oriented services evaluation	Means IG		F values IG T ₀ – T ₁	p values IG T ₀ – T ₁
	T ₀	T ₁		
Opportunities exist for family members to be involved in treatment planning and organizational development	1.44	2.59	6.760	0.014*
Family members are represented on committees and are involved in staff training	0.33	0.65	0.544	0.466
Service users are encouraged and supported in their pursuit of employment and vocational skills	2.63	3.06	1.386	0.248
Development of educational and employment goals are emphasized in recovery plans	1.43	3.18	24.381	0.000**
Individualized placement and support guides vocational activities	2.92	3.29	1.265	0.270
Tolerant housing is available to those who cannot maintain sobriety or stable recovery	2.40	2.60	0.288	0.596
Service users are satisfied with housing options available	2.13	2.53	1.432	0.242
Organizational culture				
Service users feel respected by service providers	3.00	3.41	4.282	0.047*
Service users feel welcome and valued	3.00	3.41	5.337	0.028*
Providers communicate with service users honestly and sincerely	3.38	3.47	0.195	0.662
Documentation is an open process that service users may have easy access to if desired	1.80	3.06	8.741	0.006**
Service users are informed of their rights and responsibilities	3.19	3.35	0.313	0.580
There is an equitable process through which service users and providers can resolve conflicts or disagreement	1.40	3.00	10.625	0.003**

* $p < 0.05$; ** $p < 0.01$

direction were determined concerning treatments and supports as well as related to the organizational culture of the ward. This is consistent with two out of three domains of Sowers' guideline for recovery-oriented services, i.e. treatment and supports [13]. No substantive changes were found concerning the domain of administration involving, e.g., an organizational commitment to foster recovery, continuous improvement in quality management, or the involvement of service users on various institutional levels. Because the implementation of the recovery-oriented approach was limited to one ward as a pilot project without explicit implementation of the notion of recovery on an institutional level this result was expected. Le Boutillier et al. [11], with their qualitative analysis, extracted organizational commitment as one out of four practice domains for guidance, and discussed the importance of the involvement of a whole system. This may lead to a more sustainable shift towards the recovery orientation of a psychiatric service, but this study already shows positive changes of clinical, hands-on alterations concerning the every-day treatments and the therapeutic attitude on a single-unit-level (ROSE).

Along with the implementation of the concept in this study ward there was higher work satisfaction in general, and in particular, a better opportunity to deploy their own abilities at work as well as greater self-confidence. This refers to a study published in 2012, which showed a higher level of work satisfaction and a lower level of exhaustion among 114 case managers working in recovery-oriented community mental health services [31] as well to a study published in 2004, which highlighted a correlation between self-realization and satisfaction with the ward. Although the ward atmosphere as rated on the CES did not change in the course of this study, it is significantly more positive compared to the control wards in the aspects, 'therapeutic hold' and 'patient cohesion' but not concerning 'safety' [32].

Attitudes towards recovery did not change among staff of the intervention ward during the study, although these individuals held more positive attitudes towards recovery than did staff members on the control wards. However, attitudes concerning recovery were already positive among staff of the study ward at study begin, pointing to an openness towards recovery orientation in the first place.

The attitudes towards coercion did not significantly change among staff of the study ward during the study nor compared to the control group. The latter result is in line with literature that implies that the attitude towards coercion needs time to be influenced [33] as well as having strong leadership of service management [34]. Perhaps this result indicates the limitations of a single-unit project and could be influenced more distinctly if the reduction or elimination of seclusion and restraint were the target of an institution as a whole. It is understandable that an admission ward as a single unit in a large institution endeavours to find the best way to deal with existing seclusion and restraint, but is not able to eliminate them [34]. Even so, the study ward at hand has more than the half of their patients admitting involuntarily. A care research group called this challenge of acute psychiatric wards as caring approaches between "bulldozer and ballet dancer" [35]. The authors recommend further reflection on the integration of both, meaning that a more paternalistic approach with the target of keeping wards ordered and safe would have its place were it to be done in a professional way like the person-centred approach.

The study at hand has several limitations. Some minor differences between the study groups were detected that might have an influence on the results. Most demographic variables of the intervention group did not differ before and after the intervention, but team members were significantly more often absent due to holidays and illness at study end. This might be explained by the second measurement time point being at the end of the main summer holidays and possibly having an impact on the assessment of work satisfaction,

ward atmosphere, and attitudes as rather subjective measures but less likely on the evaluation of the ROSE questionnaire that relies on objective sources. However, the absent difference between groups on the SCL as an indicator of personal stress and burden due to psychological symptoms does not support this assumption. Again, this does not apply to the ROSE questionnaire that assesses factual conditions of a ward or institution. As a further limitation, the small sample size has to be considered. This is supposedly related to the high turnover of staff, leading to an overlap of the subsamples before and after the interventions of less than 50 %. The strength of the study lies in the evaluation of a naturalistic clinical project with a longitudinal study design and the inclusion of a control group [36].

Conclusions

The implementation of a person- and recovery-oriented approach on an acute admission ward (with a seclusion room and closed ward door as factors that seem at first sight to contradict a recovery-oriented setting) was achieved in the present project and seems to be possible in general. Consequently treatments, supports and organizational culture as rated by staff members shifted to a recovery-oriented approach. Satisfaction with work increased while attitudes did not significantly change during the limited study period of one year. The present study thus indicates that it is clearly worth the effort for interdisciplinary teams on acute psychiatric wards to deal with the subject of therapeutic attitudes and approaches towards their patients. Recovery-oriented principles can be implemented even in a treatment setting that is traditionally beyond the scope of the recovery movement.

Conflict of interest The authors declare that they have no conflict of interest.

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