

Ferdinand Keller¹, Lutz Goldbeck¹, Alexander Naumann² und Jörg M. Fegert^{1,3}

Department of Child and Adolescent Psychiatry/Psychotherapy, University of Ulm, Germany¹
 Department of Child and Adolescent Psychiatry and Psychotherapy, NLKH Lüneburg, Germany²
 Department of Child and Adolescent Psychiatry and Psychotherapy, ZfP Weissenau, Germany³

Introduction / Objective

As most studies assess patient satisfaction and other aspects of process quality cross-sectionally (i.e., key date survey, questionnaires at discharge), little is known about change of satisfaction during the different phases of the treatment period. In a first study (Keller et al., 2003), we found that the adolescents showed very different levels of satisfaction with treatment conditions, and there was little change of level during their hospital stay.

In this study, based on a larger patient sample, we extended the pool of items by including related issues such as participation and motivation.

Methods

The study group consisted of 88 adolescents (48 female, 40 male; age range is between 13 and 18 years). These 88 persons provided altogether 1003 time points (median per person is 8). The questionnaire included 21 items (see table 1 for a short description) that were asked twice weekly by computer-assisted methods. Each item could be rated on five categories (1=agree not at all, to 5=completely agree). Assessment took place in two different in-patient units: a) a well established department at a state psychiatric hospital with a long treatment and team experience (ZfP Weissenau), and b) a newly developed unit at a university hospital (Ulm).

Statistical analysis was done by means of hierarchical linear modeling (growth curve analysis) that is well suited for the analysis of data with different number of time points and missing data. To avoid a bias due to a few long time series, the following results are based on the time series for the first two months (t=783).

Table 1: Descriptive values for the items and results of a principal components analysis (promax-rotated; t=783/360/391 of 88 persons); items concerning new medication are not shown.

Item (short form)	mean	SD	factor 1	factor 2	factor 3
1) overall, I felt good today	3,60	(1,3)		.87	
2) overall, I was content	3,39	(1,4)		.90	
3) participated in decisions	3,38	(1,3)	.53		
4) content with therapies	4,06	(1,1)		.64	
5) got along with staff	4,04	(1,1)	.48	.39	
6) got along with other adolescents	4,27	(0,9)		.54	
7) felt respected by staff	3,68	(1,2)	.87		
8) felt respected by therapists	4,10	(1,1)	.84		
9) informed about treatment	3,46	(1,4)	.73		
10) makes sense to stay here	3,74	(1,4)		.40	.65
11) eager to cooperate in therapy	3,76	(1,3)		.63	
17) drugs help	3,46	(1,3)	-	-	-
18) observed side effects	1,95	(1,3)	-	-	-
19) helpless in the face of my problem	3,26	(1,4)			.86
20) food was good	3,22	(1,5)	-	-	-
21) private sphere respected	3,66	(1,3)	.58		
Eigenvalues			5,39	1,39	1,11
Variance explained			41,4%	10,7%	8,5%

Results

Psychometric properties

Acceptance of the assessment was good, and the adolescents filled out the items in a differentiated way, demonstrated by the frequency distribution of the categories (not shown).

Mean values over all time points were mostly in the range of 3.5 to 4 on the 5-point scale, with highest values in „getting along“ (other adolescents, staff), but also in „respected by therapists“ (c.f. Tab. 1).

Principal component analysis suggested a solution with three components, according to the eigenvalue criterion > 1. They can be characterised as „**participation - being respected**“, „**general satisfaction**“, and „**motivation**“. Although participation and respect turns out as an extra component, this result should be taken with care because the correlation with factor 2 is high (r=.54) and the measurements are not independent.

Course of the trajectories

Estimation of the person specific trajectories revealed that the levels were significantly different between persons, but the slope were quite homogeneous, i.e. they remain on their personal levels during hospital stay. Exceptions are items from the participation factor (see below for the group differences) and, interestingly, the item “food was good”.

Group differences in the course of the trajectories

Differences between boys and girls were small, except a significant difference in “eager to cooperate in therapy” that was rated lower by girls.

The comparison between the two in-patient units yielded significant interaction effects unit x time in items concerning participation. The figure below shows this relation for the item 3 (“could participate in decisions”): in Weissenau, there is an upward trend indicating even more participation with time, while the adolescents in Ulm remain on their high level, or slightly decrease. The other items of factor 1 and the sum score of these items revealed similar results.

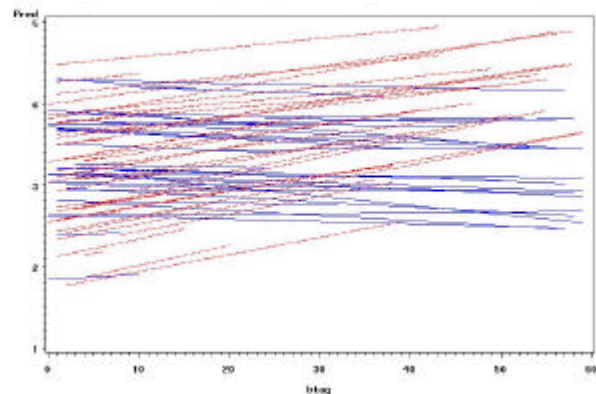


Figure 1: Estimated trajectories for item 3 „could participate in decisions“, split for the two units (first two months; red = Weissenau, blue = Ulm).

Conclusion

- 1) Results from the first study concerning the heterogeneous, but surprisingly stable satisfaction ratings over time could be replicated.
- 2) The issue “participation – being respected” revealed new insights. The items grouped as a factor and there were differences between the two units that can be interpreted as a consequence of a more experienced team in an established unit.
- 3) Evaluation of process characteristics has turned out to be feasible in clinical routine; also, the courses provided important information for the clinicians (e.g., in motivation).
- 4) With regard to diagnostic subgroups, the differences in mean values between internalising and externalising patients are remarkably small, but further analyses will be conducted.