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PROFILES OF RECREATIONAL ACTIVITIES OF DAILY LIVING (RADL) IN PATIENTS WITH MENTAL DISORDERS

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SUMMARY

Background: *Activities of daily living, play a key role in the measurement of functional health as defined by the International Classification of Functioning, Disability and Health (ICF) and in prevention and treatment of mental or somatic illnesses. From a clinical context it is important to discriminate between basic "activities of daily living, ADL", "intentional activities of daily living, IADL", and "recreational activities of daily living, RADL". While ADL and IADL have gained much attention in dementia, the elderly, or severe somatic illnesses, there is a lack of research on RADL, which are important in depression, anxiety, or other neurotic disorders.*

Subjects and methods: *154 unselected inpatients of a department of behavioral and psychosomatic medicine filled in the "Check List of Recreational Activities" to assess the rates and profiles of RADL.*

Results: *Patients reported on average 19.3 (s.d. 7.0) activities (range 4 – 40), i.e. males 21.3 (s.d. 6.5, 9 – 34) and females 18.9 (s.d. 7.1, 4 – 40). Most frequent RADL were passive and unspecific activities like "watching tv" (93.4%). Least frequent were activities which need special skills or preparation like "horse back riding" (0.7%). Low rates were also found for activities which are in the centre of inpatient occupational therapy like "ceramics" (4.7%) or "silk-painting" (2.6%). There are differences between sexes but not in respect to age (18 to 60), sick leave and unemployment, or diagnostic status. When patients were asked what they would like to do in the future, the same activity profile emerged as when looking at what they had done in the last month*

Conclusion: *The data give a reference profile for recreational activities, help to define what can be considered a normal frequency and spectrum of RADL, and, by this, can guide therapeutic interventions.*

Key words: *ADL – IADL – RADL – ICF - functional health - occupational therapy - ergotherapy*

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INTRODUCTION

Mental illness is regularly not only associated with symptoms, i.e. disorders of function, but also impairment in activities of daily living. Activities play a key role to measure functional health or disability. This has found new interest with the publication of the International Classification of Functioning, Disability and Health (ICF) by the World Health Organization (2001). Disorders of activities and functional deficits in everyday competence serve as threshold and/or severity criteria in diagnostic algorithms of ICD-10 or DSM-IV (Dilling et al. 1993, APA 1994, Hindmarch et al. 1998) and play a key role in describing illness, in evaluating the outcomes of treatments or in estimating service needs. König et al. (2007) reported for schizophrenic patients that even after symptomatic remission 45% still had problems in "usual activities" and Sun et al. (2007) that only 10% showed adequate social and/or vocational behaviour. Daily activities can help to prevent dementia (Verghese et al. 2008), are significantly associated with reduced risk of coronary heart disease (Hu et al. 2007), or contribute significantly to life satisfaction (Nimrod 2007). Activities of daily living are therefore an important target in the diagnosis and treatment of

mental disorders and the focus of psychotherapy, ergotherapy and vocational therapies in psychiatry and psychosomatic medicine (Kielhofner 2004). This is reflected in much research on activities of daily living in elderly persons, dementia, depression, or chronic illness (Katz et al. 1963, Lawton & Brody 1969, Pöhlmann & Hofer 1995, Ferster 1973, Lewinsohn 1976, Lewinsohn & Libet 1972).

When it comes to the description and conceptualization of daily activities, best known is the "Index of activities of daily living, ADL" (Katz et al 1963) which comprises basic activities of self-care such as bathing, dressing, getting around inside, toileting, or feeding. Lawton and Brody (1969) went a step further and developed the concept of "instrumental activities of daily living, IADL", i.e. activities which can define independent living, like preparing meals, doing housework, doing laundry, shopping, managing money, taking medicines, telephoning, going places outside of walking distance, and getting around inside. There are many scales to assess ADL and IADL with some variations depending on the purpose they serve (Hindmarch et al. 1998, Spector & Fleishman 1998, Wilms et al 1998, Potkin 2002).

ADL and IADL are not enough to describe functional health according to the ICF in a comprehensive way. Also, from a salutogenetic perspective (Antonovsky 1993, 1997) it is not enough to assess basic activities of self maintenance. Healthy behaviour is more than that. It also encompasses recreational activities (RADL). Illness can lead to a reduction in activities which can be more relevant for the quality of life than illness symptoms as such. In behaviour therapy and health psychology activities of persons are described in the context of quality of life, resources, competencies or health behaviour in general (Horn 1998, Hasenbring 1994, Faltermaier 1999, Franke 1993, Zitterbarth 1995, Schneider 2000). To increase RADL is an important therapeutic goal.

In spite of their importance, RADL are not very well defined nor are there sufficient empirical data in this area (Viehauser 2000). It is beyond doubt that every healthy person should be able to wash him-/herself, move around or do housework. Yet, it is unknown how much of occupational or recreational activities a healthy person should do. How often should a person go to see a movie? Must one play chess? Must a healthy person engage in sports? How many hours should a person work? When does a reduction in daily recreational and occupational activities become such a problem that the person is in need of therapeutic help?

A great difficulty in assessing RADL is that they vary across different racial/ethnic groups and social classes or at different time (Aguiar & Hurst 2007, Marshall et al. 2007). Furthermore, there is a high rate of leisure time inactivity varying, between 9% and 27% in a random telephone survey of 4695 male and 6516 female noninstitutionalized U.S. adults (Marshall et al. 2007), so that it is unclear to which degree this is dysfunctional or not. Finally, there is a lack of instruments to measure RADL.

Given this background, we wanted to assess the profile of RADL in a sample of psychosomatic inpatients. The question has been what these patients have done as RADL and what they would like to do in the future. Such information is of interest to make an estimate of impairment in RADL and guide psycho- and ergotherapeutic interventions.

SUBJECTS AND METHODS

154 (128 women & 26 men) unselected inpatients from a department of behavioural medicine participated in the study. They were on average 44 years (SD = 9.14, range 18 to 60). 95% were white collar workers, 28% were unemployed. Time on sick leave during the past year was on average 14.3 weeks (s.d. 17.4). 23.4% of patients were suffering from affective disorders (ICD-10 F3), 60,4% from anxiety and other neurotic disorders (ICD-10 F4) and 14.3% from personality disorders (ICD-10 F6).

Shortly after admission, patients were asked to fill in the "Check List of Recreational Activities, (RADL check list). This gives a list of 66 items which can be grouped (see tab. 1) in "cultural activities" (e.g. listen to music), "physical activities" (e.g. jogging), "manual skills" (e.g. photography), "social recreation" (e.g. visit friends) and "home activities" (e.g. cocking). Items of the scale were in part taken from the NPI Interest Check List (Matsutsuyu 1969, Rogers et al 1978, Klyczek et al 1997) and the pleasant event scale (Lewinsohn & Libet 1972) and adapted to German styles of living. Patients were asked whether they had engaged in this particular activity

Table 1. Classification and frequency of activities during th last four weeks

	% all N = 154	% males N = 26	% females N = 128	chi2 sig. male/fem.	future interests 0=no, 4=very much mean (s.d.)
Cultural activities					
theatre, opera	11.1	15.4	10.2	0.450	1.94 (1.22)
concerts	16.2	26.9	14.2	0.110	2.05 (1.28)
museum	25.2	23.1	25.6	0.790	1.87 (1.09)
cinema	33.1	42.3	31.2	0.270	2.25 (1.22)
zoo	13.9	15.4	13.6	0.810	1.66 (1.17)
circus	6.6	15.4	4.8	0.047	1.30 (1.14)
excursion	57.3	64.0	56.0	0.460	2.77 (1.00)
religion	13.8	23.1	11.9	0.130	0.89 (1.23)
politics / history	40.8	50.0	38.9	0.290	1.62 (1.27)
language	11.3	19.2	9.7	0.160	1.72 (1.36)
reading	80.4	84.0	79.7	0.620	3.07 (1.02)
tv	93.4	96.2	92.8	0.530	2.31 (0.97)
listening to music	92.0	96.2	91.1	0.390	3.13 (1.02)
Social activities					
honorary activities	13.2	23.1	11.2	0.100	0.92 (1.25)
social clubs	19.2	34.6	16.0	0.028	1.22 (1.29)
parties	43.0	57.7	40.0	0.097	2.10 (1.17)
talking with friends	68.2	80.8	65.6	0.130	2.96 (1.00)
visiting friends	64.1	73.1	62.2	0.290	2.41 (1.06)
dining out of house	58.6	76.0	55.1	0.053	2.58 (1.09)
picnic	19.9	20.0	19.8	0.990	2.27 (1.11)
Hobby activities					
crossword	47.3	34.6	50.0	0.150	1.78 (1.29)
puzzles	5.3	0.0	6.3	0.190	0.83 (1.06)
collecting itmes	27.6	38.5	25.4	0.180	1.41 (1.35)
games	33.3	38.5	32.3	0.540	1.87 (1.22)
play an instrument	7.1	23.1	4.0	0.001	0.84 (1.26)
singing	22.5	26.9	21.6	0.550	1.20 (1.41)
manual arts	26.7	15.4	29.0	0.150	1.63 (1.35)
ceramics	4.7	8.0	4.0	0.390	0.93 (1.19)
needlework	20.0	8.0	22.4	0.100	1.39 (1.40)
model building	1.3	3.8	0.8	0.210	0.29 (0.82)
photography	45.1	61.5	41.7	0.064	2.11 (1.26)
painting	14.6	12.0	15.1	0.690	1.59 (1.34)
silk painting	2.6	0.0	3.2	0.350	1.03 (1.24)
computer	62.3	72.0	60.3	0.270	2.07 (1.27)
fishing	1.3	7.7	0.0	0.002	0.42 (1.00)
travelling	25.5	19.2	26.8	0.420	3.03 (1.01)
shopping	67.1	76.9	65.1	0.240	2.43 (1.13)
relaxation methods	40.8	34.6	42.1	0.480	2.70 (1.20)
sauna	16.9	15.5	17.2	0.820	1.91 (1.57)
Physical activities					
fitness center	7.2	3.8	7.9	0.460	1.37 (1.47)
exercise	34.4	23.1	36.8	0.180	1.99 (1.27)
go for a walk	82.2	80.8	82.5	0.830	3.01 (0.99)
jogging, walking	15.3	15.4	15.3	0.990	1.44 (1.48)
wandering	30.9	26.9	31.7	0.630	2.06 (1.29)
swimming	37.0	30.8	38.3	0.470	2.46 (1.16)
badminton	9.2	7.7	9.5	0.770	1.46 (1.32)

	% all N = 154	% males N = 26	% females N = 128	chi2 sig. male/fem.	future interests 0=no, 4=very much mean (s.d.)
Physical activities					
golf, minigolf	2.6	3.8	2.4	0.670	0.75 (1.05)
bicycle riding	42.8	53.8	40.5	0.210	2.58 (1.25)
billiard	6.5	11.5	5.5	0.260	0.82 (1.14)
ping pong	3.4	15.4	0.8	0.000	0.97 (1.25)
volleyball	2.0	7.7	0.8	0.022	0.58 (1.04)
soccer	2.7	15.4	0.0	0.000	0.25 (0.82)
handball	0.0	0.0	0.0	-	0.25 (0.67)
climbing	0.0	0.0	0.0	-	0.34 (0.83)
horseback riding	0.7	0.0	0.8	0.65	0.60 (1.13)
dancing	20.9	26.9	1.7	0.41	2.23 (1.35)
inline scating	0.9	0.0	1.1	0.63	0.84 (1.26)
martial arts	0.7	3.8	0.0	0.028	0.43 (1.01)
winter sports	4.6	3.8	4.8	0.84	1.03 (1.31)
bowling	11.3	11.5	11.3	0.97	1.44 (1.33)
Home activities					
buy daily goods	93.4	100.0	92.1	0.14	2.24 (1.12)
house cleaning	88.8	73.1	92.1	0.005	1.75 (1.14)
laundry	82.2	42.3	90.5	0.000	1.64 (1.18)
cocking	85.3	59.1	91.5	0.000	2.56 (1.15)
gardening	43.0	56.0	40.3	0.15	2.07 (1.40)
home repair	20.5	53.8	13.6	0.000	2.56 (1.15)

during the last four weeks (yes/no). Furthermore, they were asked to indicate to what degree they would like to engage in this activity in the future (Likert scale, 0-4).

Additionally, gender, age, diagnosis, occupational status and time on sick leave in the year before admission were documented.

RESULTS

Patients reported 19.3 (s.d. 7.0) activities (4 – 40), i.e. males 21.3 (s.d. 6.5, 9 – 34) and females 18.9 (s.d. 7.1, 4 – 40). As can be seen in tab. 1, the most frequent RADL are “watching tv” (93.4%), “buy daily goods” (93.4%), “listening to music” (92.0%), “house cleaning” (88.8%), “cooking” (85.3%), “laundry” (82.2%), “go for a walk” (82.2%), “reading” (80.4)%, “conversation” (68.2%), “shopping” (67.1%), “visiting” (64.1%), “computer” 62.3%), “dining out of house” (58.6%), “excursions” (57.3%). The least frequent activities with frequencies below 5% are “climbing” (0.0%), “handball” (0.0%), ”horse back riding” (0.7%), “martial arts” (0.7%), “inline scating” (0.9%), “model building” (1.3%), “fishing” (1.3%), “volley ball” (2.0%), “silk-painting” (2.6%), “golf/minigolf” (2.6%), “soccer” (2.7%), “ping pong” (3.4%), “winter sports” (4.6%), “ceramics” (4.7%).

Significant differences were found between sexes (Table 1) with women reporting significantly more home activities like “needle work”, “cooking”, “laundry”, or “house cleaning”. Men engaged more often in “home repair”, “playing music”, “soccer”, “ping pong”. No differences were found in respect to age (18 to 60), sick leave and unemployment, or diagnostic status.

When looking at what patients say they would like to do (>2.5) in the future, daily duties are no longer the favourites with the exception of cooking (Table 1). In respect to other recreational activities a very similar profile is found as in respect to frequencies during the last month. Patient say they would love to listen more often to music, read, go for a walk, or talk to friends (Table 1)

DISCUSSION

The present study indicates, which profile of activities is characteristic for an unselected sample of patients in psychosomatic rehabilitation. Our data suggest that daily duties like buying of daily goods or house cleaning are most prevalent. When it comes to recreational activities in the sense of

the word, then rather unspecific activities, i.e. watching tv, going for a walk, shopping, or talking to friends are most frequent. Least frequent are activities which need some training, investment, or expertise like climbing or model building. The data are in line with findings from other studies which show that sedentary or passive activities are very dominant (Marshall et al 2007, Opaschowski & Raddatz 1982, Thölen 1983). The data raise not only the question, what would be a healthy quantity but also what would be the best spectrum of RADL. In any case one could argue, that there should be a minimum rate of physical activities also (Hu et al 2007).

When looking at the spectrum of activities, another question the distinction or overlap between IADL and RADL. Cooking, for example, can both be an activity which is needed to be self-sustaining, and a recreational activity, which is an enrichment to one's life and with salutogenic properties. It is very difficult to determine, which list of items is best, as one could argue that one is needed for every cultural, social or gender group (Blöschel & Ederer 1986, Aguiar & Hurst 2007, Marshall et al 2007). This is underlined by the differences in the spectrum of activities between sexes in our study. This makes comparisons between different patient groups or countries and the development of standards and norms very difficult. Therapists obviously must have a good understanding of the living conditions of their patients in order to make a judgement whether a certain profile of activities needs therapeutic intervention.

There was not effect for age as we only had patients between 18 and 60. An interesting find is that there were no differences between patients on sick leave or not. A hypothesis has been, that unemployed persons have different profiles of activity than employed persons (Udris et al 1994, Horn 1998). That we did not find any significant difference must be explained by the nature of the preferred interests but also the assessment. We asked specifically whether a certain activity had been done during the last four weeks. Possibly we would have found differences when data on the quantity or intensity, e.g. length of watching tv per day, would have been available. In any case, the data suggest that having more time for oneself because of unemployment does not stimulate persons to use their time for new or other activities.

Also our data do not support the assumption that different types of mental illnesses lead to specific changes or reductions of activities. This may be due to the fact, that we investigated a sample of patients who were mostly suffering from depression, anxiety or personality disorders. Results could well be different, if schizophrenic or demented patients had been included. Also, as we do not have a non-clinical control group we can not say whether mental illness coincides with a reduction in the overall activity level or specific activities like social engagements.

When comparing the frequency of activities during the last month with what patients would like to do in the future, very similar profiles emerge. What they do is what they intend to do. There is obviously no desire to engage in different or fancy activities.

An important part of the inpatient treatment is ergo- or occupational therapy (Kielhofner 2004) which aims at increasing the activity level of patients and their engagement in recreational and compensatory activities. The primary focus of activities in ergotherapy manual activities like silk painting, ceramics, or needle work. According to the RADL checklist, these are no regular activities of the patients. The question is whether this indicates that it is important to especially focus on such activities or whether it shows that treatment does not correspond with the everyday needs of patients (Bridle et al. 2005, Ziegelmann et al. 2006).

CONCLUSION

The assessment of activities according to the ICF is important for the definition of healthy behaviour, functional health, the impact of activity profiles on health in general or mental health in particular functional health and are important goals of psychotherapy and ergotherapy. In contrast to ADL and IADL, it is difficult to measure and evaluate RADL. A good knowledge of RADL is needed to guide psychotherapy and ergotherapy for the enhancement of health and how to development of salutotherapeutic interventions.

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