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Mental health assessment (MHA) in rehabilitation: A descriptive study via international internet survey

Short title: Mental health assessment (MHA) in rehabilitation: A descriptive study

Shannon Juengst[a-b], Jan Egil Nordvik[c], Ilkka S. Junttila[d], Jason Smith[a,] Chung Lin Kew[b], Tanja Laukkala[e]

a University of Texas Southwestern Medical Center, Department of Physical Medicine and Rehabilitation, Dallas, Texas, USA

b University of Texas Southwestern Medical Center, Department of Rehabilitation Counseling, Dallas, Texas, USA

c Sunnaas Rehabilitation Hospital, Nesodden, Norway

d Faculty of Medicine and Life Sciences, University of Tampere, Finland and Fimlab Laboratories, Tampere, Finland

e The Social Insurance Institution Kela, Helsinki, Finland

Corresponding author: Tanja Laukkala, MD, PhD, Medical Advisor, the Social Insurance Institution Kela, tanja.laukkala@kela.fi, +358505518372 Höyläämötie 1aB 00380 Helsinki, Finland

Abstract

Objective: This cross-sectional study assessed international rehabilitation practitioners' views of mental health assessment (MHA), related specifically to assessment tools and needs in the field. **Methods:** We delivered an anonymous web-based survey capturing rehabilitation practioners' perspectives on MHA practices, assessment tools, and needs through the American Congress of Rehabilitation Medicine (ACRM) in the United States and through national rehabilitation networks in Finland and Norway. **Results:** Altogether, 355 rehabilitation professionals answered the survey. Unmet MHA needs, most often attributed to insufficient time (112/269 responders), were recognized among rehabilitation professionals irrespective of country of practice. When professional experience was weighed against barriers to conducting MHA, cost was statistically significantly linked to professional experience, with those with less experience seeing cost more as a barrier (p = .019). **Conclusions:** Rehabilitation professionals from different professions, in different countries, and working with a variety of clinical populations recognize defined barriers to MHA in rehabilitation.

Keywords: Mental health assessment, Measurement tools, Rehabilitation

Introduction

Individuals requiring rehabilitation, whether due to developmental, acquired, or degenerative conditions, often experience co-occurring mental health conditions. This is due to the high prevalence of mental health problems and psychiatric disorders in the general population [Antunes et al., 2018, de Jonge et al., 2017] as well as to stressors [Vancampfort et al., 2017] and biological changes related to the various health-related conditions requiring rehabilitation [Ferro et al., 2017]. However, outside of psychiatric rehabilitation [Hutchison et al., 2017], mental health assessment (MHA) is not always at the forefront of rehabilitation practice [Scanlan et al., 2017]. Guidelines in psychiatry are thorough, but not always applicable to rehabilitation [Silverman et al., 2015]. While MHA should be an integral part of all rehabilitation, the extent to which it is done – and the quality of the methods used – are largely unknown [Dulmen et al., 2015]. Further, different countries' healthcare structures and rehabilitation systems may contribute to variability in MHA in rehabilitation.

To determine the current state of MHA in rehabilitation practice, a task force within the American Congress of Rehabilitation Medicine (ACRM) Measurement Networking Group (MNG) developed a survey for rehabilitation practitioners, with input from various rehabilitation professionals with measurement and mental health expertise. The survey was translated and distributed in select countries (United States, Finland, and Norway) represented in the ACRM MNG and exemplifying different healthcare structures.

Methods

After initial survey items were generated (TL), feedback from members of the ACRM's MNG(including SJ and JN) was solicited with regard to content and structure of survey items. The final 25 items assessed: 1) respondents' backgrounds, including nature and scope of practice and use of MHA; 2) perception of MHA needs; 3) feasibility of and preferences for MHA; and 4) use of other measures of function. Coauthors translated the final survey into Finnish (TL) and Norwegian (JN), for broader international dissemination. Study data were collected anonymously and managed using RedCap electronic data capture tools hosted at the University of Texas Southwestern Medical Center (UTSW) [Harris et al., 2009]. Responders selected their language of choice (e.g. English, Finnish, Norwegian). UTSW's Institutional Review Board approved all studies procedures prior to survey distribution. Before distribution in Finland, the Ethical committee of Helsinki and Uusimaa Hospital District was contacted to confirm acceptability of distributing anonymous web surveys to rehabilitation professionals without separate Ethical committee evaluation. In Norway, ethical approval for anonymous web surveys is not a requirement, but all responders were informed about the intended use of the data.

Responders were self-identified interdisciplinary rehabilitation professionals or students fluent in either English, Finnish, or Norwegian. The link to the electronic survey and a brief introduction to the purpose of the study was shared via: 1) ACRM (Membership list-serve, eNews letter, and MNG); 2) the Finnish Social Insurance Institution Kela's website for rehabilitation providers; 3) the Society for Rehabilitation Research and Development (SRRD; in Finnish KUTKE) website; 4) national Current Care Guidelines website in Finland; 5) National Institute for Health and Welfare in Finland; 6) a Norwegian list-serve of approximately 1000 rehabilitation professionals working in specialized rehabilitation or local health services; and 7) social networking (responders

were encouraged to share the link with other rehabilitation professionals via email, social networking sites, websites, etc.). The questionnaire was accessible from August 15 to September 18, 2017. SPSS (IBM) was used for statistical analysis. Fisher's exact test was used to compare professional experience or work environment against barriers of conducting MHA since count in certain cells was less than 5.

Results

Of the rehabilitation professional respondents (n=355), a majority were psychologists in the U.S., occupational therapists in Finland, and nurses in Norway. Sixty-nine percent had over 10 years of work experience (for details please see Table 1). Work settings varied, with approximately half working in inpatient and half in outpatient rehabilitation in the U.S., a majority working in outpatient rehabilitation in Finland, and a majority working in inpatient rehabilitation in Norway (settings were not mutually exclusive). The main health-related conditions served were stroke, traumatic brain injury, and psychiatric conditions (Table 1).

Table 2 describes rehabilitation professionals' MHA practices and opinions. After regular clinical visits, web- and smartphone-based tools were of greatest interest to responders (Table 2). The most frequent barrier to MHA was insufficient time in the U.S. (56%), Norway (46%), and Finland (29%) (Table 3).

When professional experience was weighed against barriers to conducting MHA, cost was the only barrier statistically significantly linked to professional experience, with those with less experience seeing cost more as a barrier (Fisher's exact test p-value for cost 0.019). Other barriers, including credentials required, time limitation, lack of validated assessments and lack of translated/culturally adapted versions, were not related to responders' professional experience. Similarly, site of work (inpatient, outpatient, or vocational rehabilitation) was not linked to barriers of conducting MHA (Fisher's exact test p-value >0.05) (Table 3).

Finally, open-ended questions revealed a need for assessment of the impact of mental health on daily life and for validated measurement tools for specific clinical populations.

Discussion

Rehabilitation practitioners described unmet needs in the field of MHA in this international questionnaire. Less experienced responders considered costs of MHA to be a barrier more often than more experienced responders. Through experience and cost-effectiveness analyses, practitioners may find ways to work around cost barriers [Garrido et al., 2017, Rosenbeck et al., 2016, Slade et al., 2017]. While psychiatric diagnoses are given based on the number and duration of symptoms, ability to function returns individually [García-Velázquez R. et al., 2017, Kamenov et al., 2018, Sheehan et al., 2017]. The WHO ICF may be used to assess and address this issue, though use by responders varied by country.

In the U.S., there exists no specific regulation requiring MHA in rehabilitation, and the practice of MHA in rehabilitation settings varies. The Commission on Accreditation of Rehabilitation Facilities (CARF), a private organization, established standards for accreditation of healthcare delivery in U.S. rehabilitation facilities. CARF accreditation is optional, though serves as the gold standard in the U.S. It requires that patients have access to a mental healthcare provider, typically a psychologist, and there is a push to include psychologists in rehabilitation settings.

Finland has nationalized healthcare, but many rehabilitation services, such as rehabilitative psychotherapy, are provided by the private sector. A comprehensive reform of the rehabilitation system is underway (http://valtioneuvosto.fi/en/article/-/asset_publisher/1271139/kuntoutuksen-uudistamiskomitean-raportti-julkaistu). In Norway, physical medicine and rehabilitation services are separate from mental health care services. Although there is awareness among healthcare professionals in physical rehabilitation about mental conditions, persons with moderate to severe psychiatric symptoms are typically referred to the mental health services for diagnosis and treatment.

Though this survey provides direct evidence of a perceived need to improve MHA in rehabilitation internationally, selection bias potentially limits the generalizability of the findings. The survey was delivered through rehabilitation professional networks, suggesting a likely representative sample, but not all responders answered all questions or completed the full survey.

To our knowledge, this is the first interdisciplinary international survey of rehabilitation professionals' perspectives on current MHA practices. More consistent integration of MHA into rehabilitation emerged as a prominent need.

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Table 1. General characteristics of the responders to the survey. Responders from three individual countries (USA, Finland and Norway) are shown both individually for each country and combined as indicated[#]

	USA n (%)	Finland n (%)	Norway n (%)	Others** n (%)	Combined n (%)	Number of responders (%)
Country of residence	82 (23)	134 (38)	131 (37)	8 (2)	355	355
Profession						355
Nurse	2 (2)	7 (5)	34 (26)	0 (0)	43 (12)	
Occupational therapist	14 (17)	50 (37)	19 (15)	2 (25)	85 (24)	
Physical therapist	8 (10)	15 (11)	25 (19)	1 (13)	49 (14)	
Psychologist	24 (29)	7 (5)	23 (18)	3 (38)	57 (16)	
Physician	17 (21)	14 (10)	16 (12)	0 (0)	47 (13)	
Rehabilitation/vocational counsellor	8 (10)	10 (8)	4 (3)	0 (0)	22 (6)	
Social Worker	2 (2)	4 (3)	6 (5)	1 (13)	13 (4)	
Other	7 (9)	27 (20)	4 (3)	1 (13)	39 (11)	
Age Group	n=82	n=134	n=130	n=8		354
20-29	7 (9)	16 (12)	4 (3)	2 (25)	29 (8)	
30-39	22 (27)	21 (16)	28 (22)	0 (0)	71 (20)	
40-49	14 (17)	38 (28)	48 (37)	2 (25)	102 (29)	
50-59	19 (23)	40 (30)	39 (30)	2 (25)	100 (28)	
60-69	16 (20)	19 (14)	10 (8)	2 (25)	47 (13)	
70+	4 (5)	0 (0)	1 (1)	0 (0)	5 (1)	
Work experience	n=82	n=134	n=130	n=8		354
0-2 years	8 (10)	14 (10)	3 (2)	1 (13)	26 (7)	
3-10 years	26 (32)	25 (19)	26 (20)	1 (13)	78 (22)	
>10 years	45 (55)	93 (69)	101 (78)	6 (75)	245 (69)	
Retired	3 (4)	2 (2)	0 (0)	0 (0)	5 (1)	
Work setting*						355
Inpatient rehabilitation	40 (49)	40 (30)	91 (70)	2 (25)	173 (49)	
Outpatient rehabilitation	40 (49)	62 (46)	40 (31)	2 (25)	144 (41)	
Vocational rehabilitation	2 (2)	23 (17)	16 (12)	0 (0)	41 (12)	
Other (e.g. research)	25 (31)	40 (30)	9 (7)	5 (63)	79 (22)	

Primary Clinical or Research	n=82	n=129	n=130	n=8		349
Clinical	58 (71)	86 (67)	123 (95)	4 (50)	271 (78)	
Research	24 (29)	43 (33)	7 (5)	4 (50)	78 (22)	
Clinical population served *						355
Spinal cord injury	24 (29)	11 (8)	15 (12)	2 (25)	52 (15)	
Traumatic brain injury	50 (61)	20 (15)	32 (24)	6 (75)	108 (30)	
Stroke	48 (59)	20 (15)	39 (30)	5 (63)	112 (32)	
Other brain injury	29 (35)	12 (9)	21 (16)	3 (38)	65 (18)	
Multiple sclerosis	14 (17)	11 (8)	20 (15)	0 (0)	45 (13)	
Parkinson's disease	13 (16)	14 (10)	17 (13)	0 (0)	44 (12)	
Mild cognitive impairment/Alzheimer's disease	21 (26)	21 (16)	14 (11)	0 (0)	56 (16)	
Cancer	14 (17)	8 (6)	20 (15)	0 (0)	42 (12)	
HIV/AIDS	3 (4)	1 (1)	1 (1)	0 (0)	5 (1)	
Burn injury	6 (7)	3 (2)	2 (2)	1 (13)	12 (3)	
Amputation	16 (20)	14 (10)	14 (11)	1 (13)	45 (13)	
Medical debility	19 (23)	14 (10)	36 (28)	0 (0)	69 (19)	
Muscular dystrophy	2 (2)	14 (10)	16 (12)	0 (0)	32 (9)	
Sensory/polyneuropathy	7 (9)	11 (8)	12 (9)	0 (0)	30 (9)	
Orthopaedic	19 (23)	21 (16)	24 (18)	0 (0)	64 (18)	
Psychiatric	13 (16)	58 (43)	37 (28)	0 (0)	108 (30)	
Other clinical population	6 (7)	31 (23)	45 (34)	0 (0)	82 (23)	
Average total patients per week served	n=77	n=100	n=112	n=7		296
1-10	28 (36)	38 (38)	44 (39)	2 (29)	112 (38)	
11-20	18 (23)	28 (28)	39 (35)	2 (29)	87 (29)	
21-30	6 (8)	17 (17)	15 (13)	0 (0)	38 (13)	
>30	9 (12)	3 (3)	5 (5)	1 (14)	18 (6)	
Do not see patients/clients	16 (21)	14 (14)	9 (8)	2 (29)	41 (14)	

*Percentages do not add up to 100% as multiple options could be selected simultaneously.

** Canada, New Zealand, Netherlands, Cyprus

n=number of responders, percents in parenthesis

Table 2. Characteristics of Mental Health Assessments (MHA) by the responders[#]

	USA	Finland	Norway	Combined*	n (responders)
Conducts MHA	n=77	n=97	n=112	n=286	286
yes	42 (55)	37 (38)	56 (50)	135 (47)	
Percent of patients who need MHA	n=75	n=93	n=111	n=279	279
<20%	15 (20)	17 (18)	23 (21)	55 (20)	
21-50%	17 (23)	20 (22)	40 (36)	77 (28)	
51-80%	16 (21)	14 (15)	22 (20)	52 (19)	
>80%	27 (36)	42 (45)	26 (23)	95 (34)	
Currently used tools for MHA**	n=77	n=90	n=104	n=271	271
Do no use and no need for mental health assessments	7 (9)	14 (16)	15 (14)	36 (13)	
Do no use but would like to use mental health assessments	4 (5)	16 (18)	27 (26)	47 (17)	
Clinical interviews	60 (78)	62 (69)	35 (34)	157 (58)	
Self-rating scales	52 (68)	51 (57)	66 (64)	169 (62)	
Other-rating scales	10 (13)	16 (18)	10 (10)	36 (13)	
Currently used methods for conducting MHA**	n=77	n=90	n=104	n=271	271
Regular clinic visits	41 (53)	44 (49)	61 (59)	146 (54)	
Follow-up phone calls	15(20)	26 (29)	23 (22)	64 (24)	
Mailed paper assessments	4 (5)	10 (11)	9 (9)	23 (9)	
Web-based surveys	9 (12)	5 (6)	9 (9)	23 (9)	
Smartphone-based surveys	2 (3)	2 (2)	0 (0)	4 (2)	
Other	18 (23)	33 (37)	22 (21)	73 (27)	
Current methods of interest for conducting MHA**	n=77	n=90	n=104	n=271	271
Regular clinic visits	30 (39)	36 (40)	51 (49)	117 (43)	

Follow-up phone calls	19 (25)	27 (30)	24 (23)	70 (26)	
Mailed paper assessments	5 (7)	18 (20)	9 (9)	32 (12)	
Web-based surveys	39 (51)	31 (34)	35 (34)	105 (39)	
Smartphone-based surveys	33 (43)	38 (42)	28 (27)	99 (37)	
Other	4 (5)	18 (20)	12 (12)	24 (9)	
Acceptable amount of time to devote to completing MHA	n=68	n=77	n=91	n=236	236
1-15 minutes	28 (41)	10 (13)	18 (20)	56 (24)	
16-30 minutes	9 (13)	18 (23)	25 (28)	52 (22)	
31-45 minutes	9 (13)	10 (13)	17 (19)	36 (15)	
46-60 minutes	8 (12)	15 (20)	15 (17)	38 (16)	
61-90 minutes	6 (9)	5 (7)	7 (8)	18 (8)	
91-120 minutes	0 (0)	3 (4)	5 (6)	8 (3)	
>120 minutes (no limit)	8 (12)	16 (21)	4 (4)	28 (12)	
Do you use ICF Coding in your daily work?	n=64	n=69	n=85	n=218	218
yes	14 (22)	21 (30)	42 (49)	77 (35)	

* USA, Finland and Norway. ** n values to corresponding responder n value do not correlate as multiple options could be selected simultaneously

 # n=number of responders, percents in parenthesis

Table 3. Barriers of conducting MHA among rehabilitation professionals in the US, Finland and Norway*#

	USA (n=75)	Finland (n=90)	Norway (n=104)	n =269
Cost	16 (21)	21 (23)	6 (6)	43(16)
Credentials required	11 (15)	27 (30)	35 (34)	73(27)
Time	38 (51)	26 (29)	48 (46)	112(42)
Lack of validated assessments	11 (15)	25 (28)	21 (20)	57(21)
No translated/culturally adapted versions	17 (23)	24 (27)	27 (26)	68(25)
Other barriers	14 (19)	28 (31)	18 (17)	60(22)

* The responders had ability to reply yes to more than one barrier

n=number of responders, percents in parenthesis