



Original article

Functioning mediates help-seeking for mental problems in the general population

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ABSTRACT

Aims: Absent or delayed help-seeking is considered to aggravate the immense personal and societal burden caused by mental disorders. Therefore, we cross-sectionally examined rates and clinical and sociodemographic moderators of early help-seeking for current clinician-assessed non-psychotic mental problems/disorders in the community.

Methods: Altogether, 2683 individuals of the Swiss Canton Bern (16–40 years old, response rate 63.4%) were interviewed by telephone for current axis-I problems/disorders using the Mini-International Neuropsychiatric Interview, for psychosocial functioning using the Social and Occupational Functioning Assessment Scale, and for help-seeking for mental problems.

Results: In total, 1122 (41.8%) reported mental problems. Of these, 769 (68.5%) affirmed any one screening question and 353 (31.5%) fulfilled criteria for any current axis-I disorder, and 396 (35.3%) reported any lifetime help-seeking (28.3% sought help in the past and 7.0% were in current treatment). In path analyses, current help-seeking was associated mainly by type and number of mental problems/disorders mediated by functional impairment, in addition to older age, no current partner, and past treatment.

Conclusion: Our cross-sectional data indicate a gap in help-seeking for mental problems/disorders. The relationship between number of mental problems/disorders and help-seeking mediated by functional impairment confirm that individuals commonly do not seek help until problems are severe enough to cause problems in occupational and psychosocial functioning, driving the already immense costs of mental disorders. Thus, campaigns promoting early help-seeking, including early diagnostic clarification of and support for subthreshold mental problems in terms of an indicated prevention, should focus on psychosocial functioning, aside from signs of mental illness.

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1. Introduction

In 2010, approximately 38% of the European population suffered from a mental disorder [1]. Mental disorders commonly have their onset in late adolescence and early adulthood [2–4], and contributed most to the overall morbidity, already in 10- to 14-year-olds [5], and annual costs in Europe in general [6] and Switzerland in particular [7].

Absent or delayed help-seeking for mental problems, and the resulting high rates of chronic or recurrent courses are considered the main reasons for the high long-term burden caused by mental disorders [8]. Consequently, treatment for early incipient cases and an indicated prevention of mental illness, through the detection and treatment of early symptoms, are considered the most important aspects of both reducing severity-persistence of primary disorders and preventing secondary disorders and, thus, of reducing the overall burden [2–4,9]. Yet, despite increasing mental health service use in recent decades, the majority of individuals with mental problems do not seek professional help in terms of both diagnostic clarification and treatment [10–12]. Thus, the rate of the so called ‘treatment gap’ for people with mental problems exceeds 50% around the world [13–16] (note: henceforth ‘treatment gap’ is used for the absence of any kind of help-seeking

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in persons with mental problems/disorders incl. seeking diagnostic clarification and temporary support).

To promote mental health by early help-seeking for mental problems in terms of both early treatment of manifest disorders and indicated prevention of incipient disorders, and to reduce long-term burden of mental disorders, a good understanding of detaining and promoting factors of help-seeking and their interplay is important. Among sociodemographic factors, previous studies found lower rates of help-seeking in men [17–20] and in younger age groups [21]. In contrast, obtaining a higher education, living alone, and being unemployed, disabled, or a single parent seemed to promote help-seeking [15,21,22]. An important clinical factor associated with more likely help-seeking is the presence of a manifest mental disorder, specifically a mood disorder [15,23], that commonly is leading to severe distress if not functional impairment. Previous studies, however, have not assessed the symptom-independent role of psychosocial functioning in help-seeking for mental disorders. In addition, they did not consider the role of satisfaction with possible earlier help-seeking attempts.

Thus, using semi-structured interviews conducted by clinical psychologists, we examined help-seeking for current mental disorders and problems possibly indicating an incipient disorder and, thus, a need for diagnostic clarification or mental health promotive actions. Moreover, advancing previous studies, we analysed the association of sociodemographic and clinical factors, including psychosocial functioning, and satisfaction with past or current treatment, to better understand the possible reasons for help-seeking.

2. Material and methods

2.1. Sample

The sample consisted of 2683 participants of the 'Bern Epidemiological At-Risk' (BEAR) study [24], a representative sample of the Bernese general population recruited using a stratified sampling method. Of the initial sample ($N = 7370$), 4471 were considered eligible [24]. The contact rate was 94.8%, the response rate 63.4% and the refusal rate 30.2%.

In addition to being between 16 and 40 years-of-age and a main resident of Canton Bern (i.e. having a valid address and not being abroad during the assessment period), an available telephone number was required for eligibility [24]. We called participants up to 100 times over several months at various times and days, including Saturdays. Potential participants that were not reached within this time were considered as unknown eligible. Moreover, interviews were aborted prematurely when respondents had (i) a lifetime diagnosis of psychosis ($n = 41$) or (ii) insufficient language skills in German, French, or English ($n = 125$). The former was done for the study's focus on clinical high risk for psychosis symptoms and criteria [24]. Of the 41 psychosis cases, 19 (46%) had never been diagnosed and treated at the time of the interview (these cases are described in detail in [25]). Only eight participants prematurely aborted the interview on their own account. The semi-structured interviews lasted 43 min on average (SD: 20 min; range: 20–225 min).

The BEAR study was carried out in accordance with the latest version of the Declaration of Helsinki. The ethics committee of the University of Bern approved this study. Further details on recruitment and sample are provided in Schultze-Lutter et al. [24].

2.2. Assessments

2.2.1. Axis-I disorders

Present DSM-IV non-substance-related axis-I disorders were assessed using the Mini-International Neuropsychiatric Interview

(M.I.N.I.) [26], which was successfully applied in telephone surveys before [27], and was shown to be a reliable measure with good concurrent and predictive validity for assessing axis-I disorders [28] with satisfying reliability of telephone assessments compared with face-to-face assessments [29]. In line with the findings on the Modified Mini Screen (MMS) [30], which is based on the M.I.N.I., the presence of any subthreshold mental problem that signals a need of professional assessment and, consequently, a need for help-seeking was assumed when at least one screening question of the M.I.N.I. (eMaterial 1) was confirmed [30,31]. Yet, when diagnostic criteria of the respective disorder were additionally affirmed in the clinical interview, instead, we assumed presence of a current mental disorder. In an open question, we asked about any known neurological disorders to exclude mental problems/disorders caused by them. Broadly in line with the M.I.N.I., current substance misuse (incl. dependence) was estimated predominantly by frequency and quantity of consumption supplemented by questions on negative consequences or problems resulting from the substance use.

2.2.2. Help-seeking

Lifetime and current help-seeking as well as regular or sporadic current treatment for mental problems were assessed using a modified version of the WHO Pathway-to-Care questionnaire [32], which has previously been used successfully in international studies of help-seeking for mental disorders [32–34]. Except when stated otherwise, 'any help-seeking contact' included any reported point-of-call to a person other than a family member or friend, irrespective of his/her professional background. When a distinction was made, professional mental healthcare was assumed when provided by psychiatrists, psychologists, and counselling services staffed with psychologists, while semi-professional mental healthcare was assumed when provided by general practitioners or other medical specialists. Only when provided by (semi-)professionals, the term 'treatment' was used.

'Satisfaction with the effectiveness of treatment' (henceforth: treatment satisfaction) was assessed using an optional item of the Brief Multidimensional Life Satisfaction Scale (BLMSS) [35], which was rated on a seven-point Likert scale, ranging from 'horrible' = 0 to 'very happy' = 6. The BLMSS has good psychometric properties and can be regarded as a brief, reliable and valid measure of life satisfaction [35].

2.2.3. Psychosocial functioning

The level of psychosocial functioning was estimated using the Social and Occupational Functioning Assessment Scale (SOFAS), a rating scale for Axis-V, the clinician's judgment of overall level of functioning, of DSM-IV [36]. The SOFAS is a global rating of current functioning ranging from 0 to 100, with lower scores representing lower functioning, and is focusing on functioning independent of the overall severity of the individual's psychological symptoms [36]. It has good psychometric properties incl. good interrater-reliability and construct validity [37,38]. A SOFAS-score between 31 and 70 refers to manifest disabilities of various degrees and a score below 30 reflects poor functioning making intensive support or supervision necessary [39]. Therefore, a score of ≤ 70 was regarded as indicative of a presence of a functional deficit [39,40].

2.2.4. Quality assurance

To achieve a $\geq 95\%$ concordance rate with the trainers (F.S.-L. and C.M.), interviewers (all clinical psychologists) received intensive 3-month training, especially in the semi-structured, context-dependent assessment of mental disorders. Additionally, weekly supervision of all psychopathological ratings with the interviewers was performed by the trainers to further ensure excellent, valid and reliable data quality.

2.3. Statistical analyses

Group comparisons of categorical, or non-normally distributed continuous or ordinal data were assessed using χ^2 -tests or Mann-Whitney *U* test. Associations of sociodemographic and clinical variables with help-seeking were explored using univariate logistic regressions. Their goodness-of-fit was estimated using the Omnibus test. According to these results and theoretical considerations, path models were computed with the weighted least squares and variance adjusted estimator [41] based on diagonally weighted least squares for categorical variables [42]. Missing data were listwise deleted. The model fit was assessed using five commonly used indices, namely, the χ^2 test, comparative fit index (CFI), Tucker-Lewis index (TLI), standardized root mean square residual (SRMR), and root-mean-square error of approximation (RMSEA), including a 90%-confidence interval. We first tested the proposed model. After removing insignificant associations and receiving a final model, we performed sensitivity analyses of the final model for genders separately. Statistical analyses were conducted in SPSS 24.0 and R (R Core Team) package lavaan [43].

3. Results

Lack of time or interest was the main reason given by the refusers who differed marginally from the 2683 interviewees in age, sex, and Swiss nationality; yet, all differences were of extremely small effect size (<0.040) [24]. Interviewees differed negligibly from the 16- to 40-year-old general population of Bern in only age distribution, but not in gender, nationality, and marital status. Consequently, with not even a small-sized response bias being detectable, interviewees were regarded as representative of their local age group [24].

3.1. Prevalence of current mental disorders/problems

Of the 2683 interviewees, 1122 (41.8%) individuals affirmed any M.I.N.I. screening question for non-psychotic axis-I disorders. Of these, 769 (28.7%) only had subthreshold mental problems, and 353 (13.2%) fulfilled criteria for any current axis-I disorder, including the most frequent specific phobias (6.5%) (Table 1). Sixty-six (2.5%) interviewees met criteria for more than one disorder; specific phobia was the most frequent comorbid disorder ($n = 22$, 0.8%).

Of the 1122 individuals with a mental problem/disorder, 41 (3.6%) were additionally considered to currently misuse a substance; 19 (1.7%) alcohol; 22 (2.0%) psychotropic drugs or medication; and 4 (0.1%) both.

3.2. Prevalence of and reasons for help-seeking

Six-hundred fifteen (22.9%) interviewees reported any lifetime help-seeking for mental problems, and 95 (3.5%) were currently in any contact for mental health problems. Of these current help-seekers, 30 (31.6%) were in sporadic contact with a (semi-) professional at the time of the interview, and 49 (51.5%) were in regular treatment. Thirty (31.6%) of the 95 current help-seekers reported subthreshold mental problems; 48 (50.5%) any mental disorder; and 17 (17.9%) neither problems nor disorders.

Of the 1122 participants with any current mental problem/disorder, 396 (35.3%) reported having sought help at any time; 28.3% did so in the past and 7% were currently help-seeking (Table 2). Regarding 'satisfaction with the effectiveness of treatment', no difference was found between those with only past help-seeking and those with current help-seeking (4.42 ± 1.5 vs. 4.65 ± 1.3 ; $U = 7466.0$, $p = 0.425$). Of the 769 participants with subthreshold mental problems, 224 (29.1%) reported having

sought help for a mental problem at any time; 25.2% of the 769 did so in the past and 9%, currently. Again, no difference in 'treatment satisfaction' was found between past and current help-seekers (4.55 ± 1.5 vs. 4.91 ± 1.3 ; $U = 1315.5$, $p = 0.254$). Of the 353 participants with any current axis-I disorder, 172 (48.7%) reported having sought help for a mental problem at any time; 35.1% of the 353 reported having sought help in the past and 13.6% reported current help-seeking. 'Treatment satisfaction' again did not differ between past and current help-seekers (4.25 ± 1.5 vs. 4.51 ± 1.6 ; $U = 2074.5$, $p = 0.427$).

With less than 30%, the rate for any current help-seeking contacts was low for all non-psychotic axis-I problems/disorders (Table 2). Regarding (semi-)professional treatment, 12.7% of those with an affective, 6.2% of those with an anxiety, 7.8% of those with an eating, 9.9% of those with a somatoform, 11.9% of those with an obsessive-compulsive, and 8.7% of those with a post-traumatic stress problem/disorder were in treatment and received medication and/or psychotherapy.

3.3. Moderators of help-seeking

3.3.1. Gender

Women reported more often any lifetime help-seeking for a mental problem than men (31.5% vs. 15.6%). However, women with a current full-blown disorder had lower rates of current help-seeking than affected men (16.7% vs. 11.6%) (Table 3). When sporadic and regular current treatments were distinguished, no gender differences between men and women with any mental problem/disorder ($\chi^2_{(1)} = 3.106$, $p = 0.078$), subthreshold mental problems ($\chi^2_{(1)} = 2.738$, $p = 0.098$), and any current axis-I disorders ($\chi^2_{(1)} = 0.820$, $p = 0.365$) were detected.

3.3.2. Functioning

Only 147 interviewees (5.5%) had a functional deficit, i.e. a SOFAS score below 71. Of these 147 persons, the majority ($n = 75$; 51.1%) was not help-seeking although they had a current axis-I disorder, 31 (21.1%) were currently help-seeking and had a current axis-I disorder, 6 persons (4.1%) were currently help-seeking although they had no current axis-I disorder, and 35 participants (23.8%) neither were help-seeking nor had a current axis-I disorder. Further, of the 353 persons with a current axis-I disorder, only 17 (4.8%) without a functional deficit were currently help-seeking, while the majority of those with a current axis-I disorder ($n = 230$; 65.2%) did not seek help and did not have a SOFAS score below 71. No gender difference in functional deficits were detected ($\chi^2_{(1)} = 0.789$, $p = 0.374$, Cramer's $V = 0.047$).

3.3.3. Other moderators

Of the other sociodemographic variables, no current partner and a family history of mental disorders in first- or second-degree biological relatives (specifically of affective disorder) were predictive of current help-seeking in the 1122 participants with any current mental problem/disorder. Of the clinical variables, current drug misuse, a higher number of mental problems/disorders, any current affective problem/disorder, and a current functional deficit predicted any current help-seeking (Table 4).

3.3.4. Path model

The proposed path model of the interplay of different socio-demographic and clinical factors on any current help-seeking, which was based on earlier models and the results of the univariate analyses, is reported in eFig. 1. This initial model had a good model fit (eFig. 2) that improved further after the elimination of five insignificant paths (Fig. 1). In this final model, the effect from number of problems/disorders on any current help-seeking was mediated significantly by functional deficit with a total effect of

Table 1
Sociodemographic and clinical characteristics (incl. prevalence rates) of those with a current mental disorder (n = 353), those with subthreshold mental problems (n = 769), those with a current mental disorder and/or problem (n = 1122), those with neither a disorder nor a problem (n = 1561) and the total sample (N = 2683).

	Mental disorder n=353 (13.2% ^a)		Subthreshold mental problem n=769 (28.7% ^a)		Either (disorder or problem) n=1,122 (41.8% ^a)		Neither (no disorder, no problem) n=1,561 (58.2% ^a)		Total sample N=2,683 (100%)	
	n	%	n	%	n	%	n	%	N	%
Age (mean ± SD)	30.8 ± 7.6		30.5 ± 7.5		30.6 ± 7.5		30.7 ± 7.6		30.7 ± 7.6	
Gender (% male)	144	40.8	351	45.6	495	44.1	952	61	1447	53.9
Nationality (% Swiss)	326	92.4	714	92.8	1040	92.7	1472	94.3	2512	93.6
Current partnership (% yes)	230	65.2	575	74.8	805	71.7	1131	72.5	1936	72.2
Highest education (% yes)										
Primary school or school for special needs (6 school years)	4	1.1	11	1.4	15	1.3	20	1.3	35	1.3
Secondary school (9–10 school years)	218	61.8	456	59.3	674	60.1	982	59.5	1602	59.7
High school (12–13 school years)	131	37.1	302	39.3	433	38.6	613	39.3	1046	39
Current employment (%employed) ^b	332	94.3	748	97.3	1080	96.3	1539	98.7	2619	97.7
Family history ^c (% yes)	177	50.1	324	42.1	501	44.7	524	33.6	1025	38.2
SOFAS score (mean ± SD, median, range)	76.2 ± 11.6, 80.0, 39–95		85.3 ± 5.6, 86.0, 55–95		82.4 ± 9.0, 85.0, 39–95		87.4 ± 4.1, 88.0, 60–99		85.3 ± 7.1, 87.0, 39–99	
Functional deficit ^d (% yes)	106	30	25	3.3	131	11.7	16	1	147	5.5
Current alcohol misuse (%yes)	9	2.5	10	1.3	19	1.7	15	1	34	1.3
Current drug misuse (% yes)	10	2.8	12	1.6	22	2	19	1.2	41	1.5
Number axis-I disorders/problems (mean ± SD, median, range)	1.80 ± 1.0, 2.0, 0–5		1.28 ± 0.637, 1.0, 0–4		1.45 ± 0.81, 1.0, 0–5		n.a.		see left columns	
Any affective disorder/problem (% yes)	112	4.2 ^a	208	7.8 ^a	362	13.5 ^a				
Dysthymia	50	1.9 ^a	51	1.9 ^a	135	5.0 ^a				
Major depression	76	2.8 ^a	131	4.9 ^a	237	8.8 ^a				
Manic episode	10	0.4 ^a	47	1.8 ^a	78	2.9 ^a				
Any anxiety disorder/problem (% yes)	252	9.4 ^a	450	16.8 ^a	742	27.7 ^a				
Generalized anxiety disorder	36	1.3 ^a	69	2.6 ^a	148	5.5 ^a				
Panic disorder	26	1.0 ^a	76	2.8 ^a	127	4.7 ^a				
Agoraphobia	34	1.3 ^a	69	2.6 ^a	136	5.1 ^a				
Social phobia	22	0.8 ^a	66	2.5 ^a	117	4.4 ^a				
Specific phobia	174	6.5 ^a	278	10.4 ^a	477	17.8 ^a				
Post-traumatic stress disorder	19	0.7 ^a	212	7.9 ^a	283	10.5 ^a				
Obsessive compulsive disorder	21	0.8 ^a	40	1.5 ^a	84	3.1 ^a				
Any eating disorder/problem (% yes)	12	0.4 ^a	31	1.2 ^a	64	2.4 ^a				
Anorexia nervosa	3	0.1 ^a	9	0.3 ^a	18	0.7 ^a				
Bulimia nervosa	10	0.4 ^a	23	0.9 ^a	49	1.8 ^a				
Any somatoform disorder/problem (% yes)	27	1.0 ^a	84	3.1 ^a	161	6.0 ^a				
Somatization disorder	7	0.3 ^a	25	0.9 ^a	50	1.9 ^a				
Hypochondriasis	5	0.2 ^a	21	0.8 ^a	42	1.6 ^a				
Body dysmorphic disorder	7	0.3 ^a	25	0.9 ^a	48	1.8 ^a				
Pain disorder	10	0.4 ^a	28	1.0 ^a	57	2.1 ^a				

^a All prevalences refer to the total sample.

^b Includes sheltered employment, temporary employment, and regular full- and part-time employment (incl. schooling, academic studies, occupational training, full-time house work).

^c In 1st- or 2nd-degree biological relatives; known as well as very likely main disorder, multiple relatives possible, maximum reported number of affected relatives was n = 5.

^d Defined by a SOFAS score of 70 or less. Source: Bern Epidemiological At Risk (BEAR) Study (SNF project number: 135381).

Table 2

Distribution of any current help-seeking for various current axis-I disorders and subthreshold problems (n = 1122).

Type of disorder/problem	Currently in any treatment (%)	Currently not in treatment (%)
Any disorder/problem (n = 1122)	7.0	93.0
Depressive episode (n = 237)	16.5	83.5
Dysthymia (n = 135)	17.0	83.0
Manic episode (n = 78)	12.8	87.2
Generalized anxiety disorder (n = 148)	20.3	79.7
Panic disorder (n = 127)	13.4	86.6
Agoraphobia (n = 136)	9.5	90.5
Social phobia (n = 117)	6.8	93.2
Specific phobia (n = 477)	4.0	96.0
Post-traumatic stress disorder (n = 283)	7.1	92.9
Obsessive compulsive disorder (n = 84)	13.1	86.9
Anorexia nervosa (n = 18)	11.5	89.0
Bulimia nervosa (n = 49)	10.2	89.8
Somatization disorder (n = 50)	14.0	86.0
Hypochondriasis (n = 42)	9.5	90.5
Body dysmorphic disorder (n = 48)	23.9	79.1
Pain disorder (n = 57)	12.3	87.7

Source: Bern Epidemiological At Risk (BEAR) Study (SNF project number: 135381).

Table 3

Frequency of help-seeking in men and women; frequency of help-seeking in men and women with current mental problems or disorders (n = 1122, 41.8%), with only subthreshold current mental problems (n = 769, 28.7%), and with any current axis-I disorder (n = 353, 13.2%).

	Men 1,447 (53.9)	Women 1,236 (46.1)	Statistics
Help-seeking (N = 2683)			
Never had a help-seeking contact	226 (15.6) ^a	389 (31.5) ^c	$\chi^2_{(1)} = 94.887, p < 0.001, \text{Cramer's } V = 0.188$
Help-seeking contact in the past	1221 (84.4) ^{a*}	847 (68.5) ^{c*}	$\chi^2_{(2)} = 96.691, p < 0.001, \text{Cramer's } V = 0.190$
Any current help-seeking contact	185 (12.8) ^{a*}	335 (27.1) ^{c*}	
	41 (2.8) ^a	54 (4.4) ^c	
With current mental problems or disorders (n = 1122)			
Never had a help-seeking contact	495 (34.2) ^a	627 (50.7) ^c	$\chi^2_{(1)} = 75.097, p < 0.001, \text{Cramer's } V = 0.167$
Help-seeking contact in the past	355 (71.7) ^b	371 (59.2) ^d	$\chi^2_{(2)} = 24.818, p < 0.001, \text{Cramer's } V = 0.149$
Any current help-seeking contact	103 (20.8) ^{b*}	215 (34.3) ^{d*}	
	37 (7.5) ^b	41 (6.5) ^d	
With only subthreshold current mental problems (n = 769)			
Never had a help-seeking contact	351 (24.3) ^a	418 (33.8) ^c	$\chi^2_{(1)} = 29.806, p < 0.001, \text{Cramer's } V = 0.105$
Help-seeking contact in the past	275 (78.3) ^e	270 (64.3) ^f	$\chi^2_{(2)} = 18.719, p < 0.001, \text{Cramer's } V = 0.156$
Any current help-seeking contact	63 (17.9) ^{e*}	131 (31.3) ^{f*}	
	13 (3.7) ^e	17 (4.0) ^f	
With any current axis-I disorder (n = 353)			
Never had a help-seeking contact	144 (10.0) ^b	209 (16.9) ^d	$\chi^2_{(1)} = 28.243, p < 0.001, \text{Cramer's } V = 0.103$
Help-seeking contact in the past	80 (55.6) ^g	101 (48.8) ^h	$\chi^2_{(2)} = 6.294, p = 0.043, \text{Cramer's } V = 0.134$
Any current help-seeking contact	40 (27.8) ^g	84 (40.1) ^h	
	24 (16.7) ^g	24 (11.6) ^h	

^a Percentages relate to all men.^b Percentages relate to men with mental problems or disorder (n = 495).^c Percentages relate to all women.^d Percentages relate to women with mental problems or disorder (n = 627).^e Percentages relate to men with only mental problems (n = 351).^f Percentages relate to women with only mental problems (n = 418).^g Percentages relate to men with mental disorder (n = 144).^h Percentages relate to women with mental disorder (n = 209).

* Cell frequency significantly higher or lower than expected with the standardized residuum of cell of >1.96 and of ≤1.96, respectively. Source: Bern Epidemiological At Risk (BEAR) Study (SNF project number: 135381).

$r = 0.317$ ($p \leq 0.001$) and an indirect effect of $r = 0.288$ ($p \leq 0.001$). The paths from number of problems/disorders to current functional deficit ($r = 0.564, p \leq 0.001$) and from current functional deficit to any current help-seeking ($r = 0.511, p \leq 0.001$) were significant, while the direct path from number of problems/disorders to any current help-seeking was insignificant ($r = 0.028, p = 0.672$).

The sensitivity analyses of the influence of gender revealed two slightly different models, specifically with regard to the role of age, of no current partner and past treatment (eFigs. 3 and 4). In females, past treatment was not associated with current help-seeking; whereas in males, age and no current partner were not associated with current help-seeking. Compared to the final model of the full sample, model fits in the subsamples declined and, in

case of the female model, did not reach sufficient fit indices (eFigs. 3 and 4).

4. Discussion

This study's comprehensive model of predictors of current help-seeking for mental problems demonstrated the importance of deficits in psychosocial functioning as a mediator of the effect of mental problems/disorders, indicating that help is mostly only sought when mental problems are already so severe or many that they impair functioning. In light of indicated-preventive efforts this is unfortunate because, generally, these target not only the prevention of a manifest disorder but also of accompanying functional deficits that, once having manifested themselves, are

Table 4
Potential predictors of any current help-seeking in those with any current mental problem or disorder (N = 1122). Results of univariate logistic regression analyses.

	β	SE	Wald	df	p-value	Exp(β)	95% CIs of Exp(β)		
							lower	upper	
Age ^a	0.032	0.017	3.703	1	0.054	1.032	0.999	1.066	
Gender (male) ^b	0.144	0.235	0.374	1	0.541	1.155	0.728	1.831	
School education ^b	0.022	0.156	0.019	1	0.889	1.022	0.752	1.388	
Current unemployment ^b	0.057	0.612	0.009	1	0.925	1.059	0.319	3.511	
Migrant status ^b	-0.401	0.527	0.581	1	0.446	0.669	0.238	1.879	
Single marital status ^b	0.275	0.244	1.266	1	0.260	1.316	0.816	2.124	
No current partner ^a	0.845	0.238	12.640	1	<0.001	2.327	1.461	3.708	
Positive family history of mental disorders ^a	0.613	0.239	6.594	1	0.010	1.845	1.156	2.945	
Current alcohol misuse ^b	0.944	0.640	2.172	1	0.141	2.570	0.732	9.017	
Current drug misuse ^b	1.125	0.566	3.957	1	0.047	3.081	1.017	9.338	
Current functional deficit ^a	2.147	0.251	73.000	1	<0.001	8.562	5.232	14.013	
Number of mental problems/disorders ^{a,c}	0.634	0.114	30.783	1	<0.001	1.886	1.507	2.360	
Type of mental problem/disorder^a									
Any current affective problem/disorder	1.577	0.256	37.947	1	<0.001	4.841	2.913	7.995	
Any current anxiety problem/disorder	0.327	0.265	1.974	1	0.160	1.450	0.863	2.436	
Any current eating problem/disorder	0.280	0.449	0.389	1	0.533	1.323	0.549	3.192	
Any current somatoform problem/disorder	0.438	0.295	2.207	1	0.137	1.550	0.868	2.764	
A current obsessive-compulsive problem/disorder	0.712	0.367	3.750	1	0.053	2.037	0.991	4.186	
A current post-traumatic stress problem/disorder	0.178	0.281	0.402	1	0.526	1.195	0.689	2.070	

^a All models were significant with a GoF of $\chi^2_{(1)} \geq 3.865$, $p < 0.049$

^b All models were non-significant with a GoF of $\chi^2_{(1)} \leq 3.148$, $p > 0.076$

^c Defined by number of affirmed screening questions in the M.I.N.I.

Note: Regressions were calculated using SPSS 24.0 with method "Enter". Significant regressions ($p \leq 0.05$) are shaded in grey.

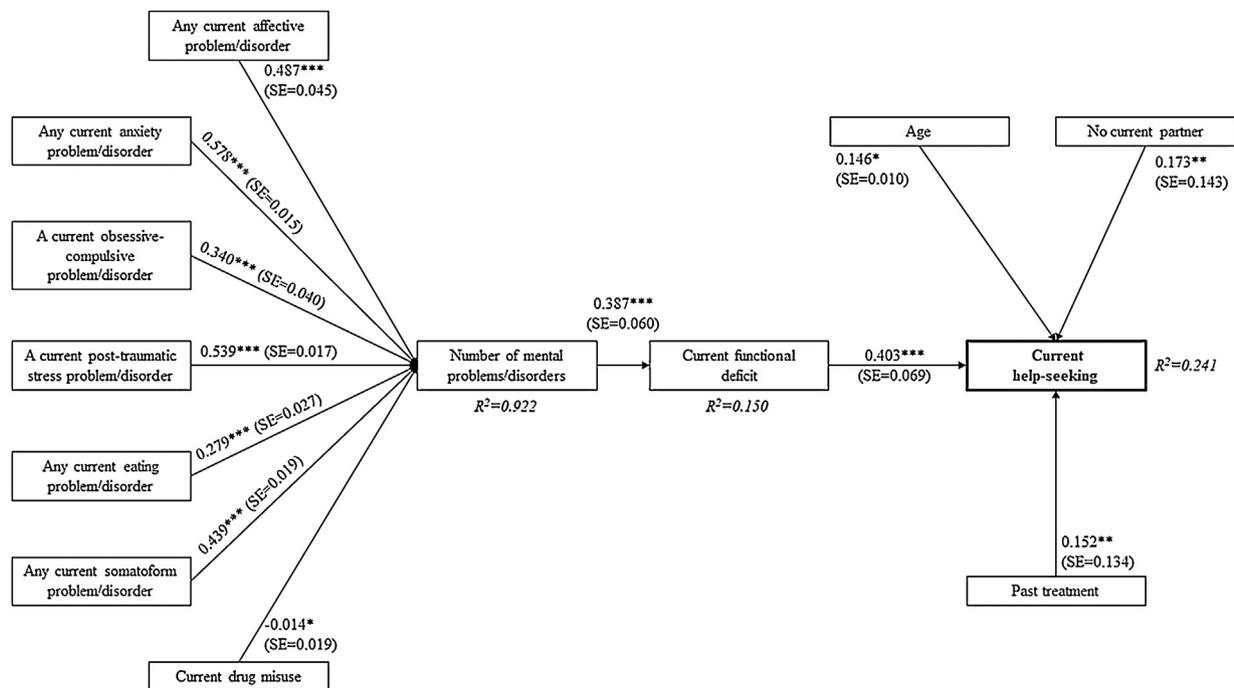


Fig. 1. Final model of associations ($n = 1122$). Model fit indices (MFI): $\chi^2_{(19)} = 84.691$, $p < 0.001$; CFI = 0.994; TLI = 0.991; SRMR = 0.087; RMSEA = 0.058 (90%CI = 0.047–0.069). * $p \leq 0.05$ ** $p \leq 0.01$, *** $p \leq 0.001$; standard error (SE) in parentheses; explained variance (R^2) for each endogenous variable in italics. Note: rectangles represent observed manifest variables; black arrows represent significant regressions. Source: Bern Epidemiological At Risk (BEAR) Study (SNF project number: 135381).

frequently hard to treat [44,45]. Furthermore, the success of indicated-preventive efforts in terms of a reduction of incidence rates of mental disorders greatly depends on sufficient numbers of persons with early signs of an incipient mental disorder getting into contact with (semi-)professionals for diagnostic clarification and/or treatment. Interestingly, sociodemographic variables, such as age, gender, education, employment status, partnership status, and positive family history of mental disorders, which were often described as important predictors of help-seeking [15,20,21],

only had a minor if any effect on current help-seeking within an age range in that non-developmental and non-degenerative mental disorders likely occur first, i.e. between 16 and 40 years of age [25].

We found slightly lower but generally similar prevalence rates and distribution of current mental disorders to those reported for Switzerland in 2010 for a wider age and time span [7]. Consistent with previous reports [8,15], a 'treatment gap' for mental problems/disorders was significant. Overall, 7% of individuals with

any current axis-I problem/disorder were currently in any help-seeking contact for their mental problems; in persons with a current mental disorder, the rate was higher but still as low as 14%. When problems/disorders were considered differentially, the rate of current non-help-seekers exceeded 75% for any diagnostic category. For the frequently reported depressive problems/disorders (major depression or dysthymia), which have been associated with the highest burden worldwide [1,11,46], the reported rate of any current help-seeking at almost 20% was comparably high [23,47]. Generalized anxiety problems/disorder and rare body dysmorphic problems/disorder were associated with current help-seeking to a slightly higher rate. Previous reports support our finding that depressed mood and anxiousness are main reasons for help-seeking [23,48]. Yet, the rate of current treatment for other anxiety problems/disorders was much lower, with specific phobic problems/disorder being the most frequent but least treated. Our study's high prevalence of current specific phobia (6.5%) is consistent with other epidemiological studies on adults [49–51]. Although specific phobias tend to have an onset in childhood and to frequently remit into adulthood, recent epidemiological studies reported them as a highly disabling, frequently co-morbid condition in adults warranting therapeutic attention [49] as well as a precursor or even predictor of other mental disorders and, thus, a potential target of prevention – especially when persisting into late adolescence/early adulthood [51–53]. Thus, we had included them into our analyses as a condition likely warranting clinical attention.

4.1. Moderators of current help-seeking

Regarding potential moderators of current help-seeking, we found greater odds for help-seeking in people with functional impairment, higher number of axis-I problems/disorders, current drug misuse, an affective problem/disorder and without partner. The greatest odds for current help-seeking were found for functional impairment and presence of an affective problem/disorder.

Other sociodemographic variables, specifically younger age or male gender, that were described previously as associated with less help-seeking [8,54,55] were unrelated to current help-seeking in our study. Yet, regarding age, other studies had commonly included individuals up to 65 years old and above [15]; thus, our sample constituted the 'younger age' group for which less help-seeking was reported [21]. Considering this, the missing age effect is not surprising.

4.1.1. Gender

The missing systematic gender effect, however, cannot be explained by sampling effects. Although, consistent with their reported higher willingness to seek help [54,55], women reported a higher rate of (past) help-seeking than men, men were currently seeking help more often than women. In studies examining help-seeking irrespective of the presence of mental problems/disorders, the reported higher rate of help-seeking women was assumed to be attributed to their higher lifetime prevalence of mental disorders rather than their general higher willingness to seek help [23]. This assumption was supported by our data showing a decreasing gender effect on help-seeking with increasing severity of mental problems. Thereby, the lowest overall effect that could not be contributed to any specific subgroup was found for help-seeking in participants meeting the criteria of any current mental disorder. This effect may be attributed to an increasing likelihood to seek help and receive longer-term treatment from a mental health professional in individuals with a mental disorder compared with those with only subthreshold mental problems. In a study of persons with anxiety or mood disorders [56], no

gender effect showed when only help-seeking from mental health professionals was considered, whereas women dominated when any help-seeking and help-seeking from medical doctors or informal individuals were examined. This interaction between gender and point of help-seeking contact should be explored further in future studies to unveil the gender-specific barriers to help-seeking from or referral to mental health professionals.

Certain indications towards gender-specific barriers were shown in the sensitivity analyses of gender, albeit the lesser and partly poor model fit of the gender-specific models compared to the whole-sample model. Gender differences in the role of age, partnership, and past treatment were found and might be worth considering in future studies. The sensitivity analyses indicated that older age and being single might increase likelihood for help-seeking in women, while this was exclusively increased by past treatment for mental problems in men. However, no gender differences for the more influential clinical variables became apparent. Thus, future information campaigns promoting help-seeking may specifically focus on young females with a partner and males in general.

4.1.2. Past treatment

Interestingly, treatment satisfaction did not seem to influence current help-seeking. Considering the reported significant role of attitudes towards help-seeking [57–59], the insignificant role of treatment satisfaction that might shape current attitudes towards help-seeking was surprising.

4.1.3. Functioning

Clinical variables, specifically the number of mental problems/disorders and functional impairment, played the main role in help-seeking, in which the role of mental problems/disorders was mediated by functional deficits. This is in line with previous studies reporting that the co-occurrence of more than one mental disorder, which increased disease burden, was associated with a higher likelihood of using health services [15,60–62] and that veterans commonly do not seek help until problems are severe enough to cause problems in occupational and psychosocial functioning [63]. If the role of functional impairments reflects higher disease burden in the affected persons and/or in their significant others who, in the presence of observable functional changes and symptoms, might increasingly encourage help-seeking should be studied in the future. A recent study on help-seeking for psychoses indicated that the role of others in initiating help-seeking becomes more significant with the increasing severity of the symptoms [64]. If this holds true for other disorders, strategies to promote help-seeking should focus particularly on persons who already have a mild current axis-I disorder or some persistent mental problems but no functional deficit and who are not currently help-seeking in order to prevent chronicity and/or exacerbation of symptoms, and functional decline.

4.2. Strengths and limitations

Next to the strengths of our study, such as the large sample size, clinician-assessment, and the consideration of not only mental problems/disorders but also psychosocial functioning, the restricted age range (16–40 years) limits the wider generalizability. The cross-sectional design of our study is certainly another limitation that it shares with many other epidemiological studies and that prevented us from examining causal associations, and that might have led to an overestimation of the 'treatment gap' in persons with spontaneous remission of mental problems/disorders. Yet another limitation that our study shares with other epidemiological studies is the lack of a physical examination to rule out somatic causes of the mental problems/disorders, although we tried to

minimize this risk by asking for known neurological disorders or other acute or chronic conditions that might influence the current mental state. Moreover, the complex pathway to early help-seeking may involve additional factors, such as attitudinal barriers [58], a low perceived need for treatment [65], low mental health literacy [66,67], or organizational problems, such as job obligations [68].

4.3. Conclusion

Overall, our results document a lack of early help-seeking for mental disorders that seems to occur worldwide and largely resistant to change. For example, between 2005 and 2010, neither the 12-month prevalence of mental disorders (38%) nor the rate of adequate treatment utilization and provision for mental disorders (26% of all cases with mental disorders) had changed substantially in Europe [1]. In our study, the point-prevalence rates of 13.2% for mental disorders and of 13.6% for any help-seeking do not give a more optimistic view for Switzerland. Despite its excellent Healthcare Access and Quality Index of 92% [69] and its top-10 position in gross domestic product per capita [70], Switzerland registered an increase in the number of young adults and persons with low income who avoid or delay medical help-seeking for financial reasons from 10% in 2010 to 23% in 2016 [71]. It must be assumed that this trend might be specifically pronounced in help-seeking for mental problems that are commonly highly related to fear of stigmatization/discrimination, as well as to low perceived need for help and a strong desire to handle the problem on one's own [58,65–67]. Yet, to fight the increasing burden and costs of mental disorders and to decrease incidence of severe mental disorders [1,7], it will be crucial to thoroughly understand barriers to help-seeking in order to successfully establish preventive measures on individual and societal levels in concerted action involving researchers, policymakers, and health specialists [72,73].

Conflict of interest

Drs Michel, Schnyder, Schmidt, Schultze-Lutter, and MSc Groth have declared that there are no conflicts of interest in relation to the subject of this study.

Dr Schimmelmann has been a consultant and/or advisor to or has received honoraria from AstraZeneca, Bristol-Myers Squibb, Eli Lilly, Janssen, Novartis, and Shire.

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Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.eurpsy.2018.06.009>.

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