Original Article

Significant differences in the Civic Recovery Composite Index as a Patient-Reported Outcome Measure (PROM): Implications for Research and Primary Care

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Abstract

Background: Recovery is the current leading paradigm in the transformation of mental health systems throughout the world. Recovery principles and values can apply from mental health to physical health for more holistic and personalized care and self-care. A key feature of a recovery-oriented system is to have patients or former patients involved as recovery mentors in the provision of care. We question whether such an approach could be decoupled to meet the specific needs of various categories of patients who are being monitored in primary care settings. **Methods:** Two-tailed independent samples t-tests were performed to explore differences to two patient-generated and patient-centered outcome measures, namely the Citizenship Measure (CM: 23 items) and the Recovery Assessment Scale (RAS: 24 items). Participants were recruited in social economy enterprises that provide supported employment for people with psychiatric disorders (*N*=173). They were successively divided in three binary sub-groups: sex (male/female), age (≤ 46 years/old ≥ 47 years old), and marital status (single/married). **Results:** The most significant difference is for the RAS *I ask for help when I need it* item, within the marital status sampling ($p = 0.00$). We found $p = 0.01$ for sex (two CM items: *You have the right to be in a relationship with a partner of your choice and you have privacy*), and for marital status (one RSA item: *I can handle stress*). Then, $p = 0.02$ for marital status (again: *You have the right to be in a relationship with a partner of your choice*). Five other differences were found at $p \leq 0.05$. **Discussion:** Several people may seek help and support from their immediate informal network and in more natural settings than formal health services, while some others will remain reluctant to seek help from anyone for their distress. Recovery mentors who have "been there" might probably be best placed to show such reluctant people how to use community resources to become and stay well. **Conclusion:** Sex- and gender-specific information on community-based and recovery-oriented self-help groups could be handed to patients in primary care settings, without having first to ask for it.

Keywords: Citizenship Measure; Recovery Assessment Scale; Civic Recovery; Patients-reported outcome measurement (PROM); Personalized Medicine

Introduction

As recommended by the World Health Organization for several years [1] recovery is the current leading paradigm in the transformation of mental health systems and policies in Canada, [2], the USA [3] and the UK [4] to name but a few among many countries around the world. Considering that mental health and physical health are closely interrelated and mutually influential dimensions of overall well-being, the possibility of transposing the principles and values of recovery from mental health to physical health has recently begun to be explored to promote access to care with a holistic and genuinely personalized approach in general practice. [5]. Indeed, patients with chronic co-morbidities who are being monitored in primary care are not alternatively part-time mentally ill and part-time physically ill; their mental and physical conditions are continuously interwoven.

The recovery paradigm might help to bridge the mental/physical gap for real integration and continuity of care, as long as care and available services are tailored to respond to the needs of specific sub-groups, that is with a one size does not fit all approach. To explore whether such an overarching perspective can be decoupled according to specific profiles of patients, this paper compares binary and independent sub-samples of participants who completed the Citizenship Measure, [6]. and the Recovery Assessment Scale. [7]

The origins of recovery in contemporary mental health are fairly well known, [8,9]. being the subject of an abundant scientific literature. Yet, tensions persist about the meaning and ownership of recovery. [10,11]. Generally speaking, there are two major portrayals of recovery, [12,13]. which can cohabit and complement each other relatively smoothly, but which can also deliberately ignore each other and evolve only in parallel to

How to Cite this Article: Jean-Francois Pelletier. Significant differences in the Civic Recovery Composite Index as a Patient-Reported Outcome Measure (PROM): Implications for Research and Primary Care. Ann Med Health Sci Res. 2017; 7: 1-8.

one another. Thus, akin to the very common notion of cure in the field of physical health, clinical recovery refers primarily to the reduction of symptoms through a curative approach to the disease or through psychopharmacology, psychotherapy, and cognitive remediation. With this first axiom of recovery, the role of the ill person is mainly to follow the instructions of professionals and comply with prescribed treatments. On the other hand, a more social and personal axiom of recovery promotes the empowerment of the persons, their ownership and authorship of their own collective and personal history, autonomy, and independence in living. Here, living with the condition is seen as a continuous learning opportunity through which a person can profoundly transform him or herself, even to the point of not wanting to be cured in the sense of returning to the same state as before the onset of that condition. These two approaches, however, can coexist and complement each other, for example as some individuals consider themselves to be in recovery with a good balance of medications, while for others, being in recovery precisely means abstaining from any medication (or addictive substances). Such dilemmas are also present in physical health management and medicine in general (e.g. caring vs. curing [14]), particularly in reference to chronic illnesses.

People with mental health problems are more prone than the rest of the population to also live with a long term condition (LTC) associated with chronic physical illnesses. [15] The reverse is also true; the experience of an LTC often leads to common mental health problems such as anxiety and depression for those affected [16] and even their immediate friends and family. This poses complex challenges for primary care providers. [17] Only taking care of the physical side of a patient's health, even if successfully, may have only moderate or even negligible effects on one's overall state of well-being, while only treating symptoms of mental disorders of people living with schizophrenia, for instance, will not necessarily improve either their overall quality of life or their life expectancy. For such people, life expectancy is indeed most significantly reduced compared to the rest of the population that is by up to 20 years or more. [18] But we do not die of schizophrenia per se.

People with mental health problems generally die, like most people, from the same complications of their LCTs, [19] but they are more sensitive to these complications and die at much younger ages than the rest of the population. This is due in part to the fact that there is still some stigma attached to mental illness and "the mentally ill", a stigma that hinders access to preventive measures and care in general practice, and afterwards to specialized treatments other than psychiatric treatments. The complaints and symptoms of sickness from people with mental illness are not subject to the same thorough medical physical investigation. [20,21] The consequences can be fatal, with a much darkened prognosis when cancer, just to take one example, is ultimately taken care of, but too late to improve the actual chances of survival.

In principle, mental health patients have the same rights to quality physical health care as patients followed for their physical health but free from psychiatric symptoms. In reality, however, epidemiological data show that this principle is very often contravened. To address this problematic public health concern, and to promote continuity and better parity between mental health and physical health, recovery as an overarching guiding principle might also extend from mental health to general practice. Beyond the principles, it is important to ensure that this potential applicability is relevant to the persons directly concerned. Does an organization that has formally endorsed recovery as a guiding principle generate results in terms of recovery for people who are beneficiaries of its services? To empirically assess and hypothesize such a possible correlational, if not causal relationship, it is necessary to have accurate indicators and as reliable as possible outcome measurement tools.

For general practitioners interested in figuring out how their patients could benefit from a global recovery approach, it might be relevant to question whether such an approach can be decoupled according to the specific profiles of their patients. This paper, thus, reports on sub-sample differences as revealed by the analysis of the output from the use of two patient-reported outcome measures (PROMs); respectively the Citizenship Measure (CM) and the Recovery Assessment Scale (RAS). Indeed, the goal of recovery-oriented care and self-care is to help people to stay and live a satisfying and as healthy a life as possible in their communities. In fact, it is a matter of remaining a full member of the community, and not just staying, isolated, in the community. Therefore, in addition to the two major portrayals of recovery mentioned above, namely clinical recovery and personal recovery, civic recovery has recently emerged in the scientific literature. [22] Civic recovery pays particular attention to the very nature of the relationship that makes that person a member of the community and not just a person who would be clinically and/or personally in recovery, but still isolated in, and from, the community. In this paper, we combine the short versions of the CM and of the RAS into the Civic Recovery Composite Index (CRCI).

Methods

A total of 183 individuals provided usable data by completing the 47-item CRCI (24-item RAS and 23-item CM); missing values have lowered the *N* to 173. This study was approved by the Institutional Review Board of *Institute universitaire en santé mentale de Montréal* (affiliated with the University of Montreal) and written informed consent for participation in the study was obtained from participants. Fifty-four percent were males (*N* = 94), and the mean age was 45.5 (SD = 10). Approximately one half (*N* = 82) reported a diagnosis of schizophrenia spectrum disorders. Anxiety disorder (*N* = 23), bipolar disorder (*N* = 23) and major depression (*N* = 21) were each mentioned by about 13% of participants. Another 4% mentioned having a personality disorder (*N* = 8). The diagnosis was unknown or unspecified among 9% of participants (*N* = 16).

For each CRCI item, study participants were invited to rate on a five-point Likert scale (5 = strongly agree; 1 = strongly disagree) the extent to which a statement did correspond to their personal situation. They were subsequently divided in three binary sub-groups: A) sex (male/female), B) age (≤46 years old/≥47 years old), and C) marital status (single/married). First, the sex sub-group is comprised of *N*=94 males, and *N*=79 females.

Second, to create as equal sub-samples as possible for the age sub-grouping, as a cutoff point we used the median age for all participants, which is of 47 years old: *N*=85≤46, and *N*=88≥47. Third, for marital status we sub-divided for singles on one side (*N*=130), and married or divorced/widowers participants (people who define themselves at least as having been in couple) on the other side (*N*=43). Assuming symmetrical distribution within each of these three sub-groupings for the CRCI, two-tailed t-tests for independent samples were performed with the Statistical Package for the Social Sciences software (SPSS, 24th version). We wanted to assess if statistically significant differences could be found among these three sub-samples.

Results

Using a significance level of 0.05, Tables 1 and 2 respectively report the results for the 23-item MC, and the 24-item RSA.

In summary, among the 47 items of the CRCI, at p = 0.00 the

Table 1: Results to the citizenship measure (*N*=173).

Items of the Citizenship Measure	Group	Sex Group 1=Male (N=94) Group 2=Female (n=79)			Age Group 1=≤ 46 (N=85) Group 2=≥ 47 (N=88)			Marital Status Group 1=Single (N=130) Group 2=Married (N=43)		
		Mean	SD	Sig.2-tailed	Mean	SD	Sig.2-tailed	Mean	SD	Sig.2-tailed
1.1- Your basic needs are met	1	4.1	0.91	0.44	4.1	1.03	0.56	4.1	0.96	0.47
	2	4.2	1.07		4.2	0.94		4.2	1.07	
1.2- You do things to take care of your home	1	4.0	0.87	0.93	4.0	1.01	0.94	4.1	0.87	0.18
	2	4.0	1.03		4.0	0.88		3.8	1.13	
1.3- You are safe in your community	1	4.1	1.00	0.72	4.2	0.93	0.45	4.1	0.93	0.60
	2	4.1	0.87		4.1	0.95		4.2	0.97	
1.4- There are laws that will protect you	1	4.1	1.02	0.47	4.1	1.00	0.11	4.0	1.06	0.25
	2	3.9	1.10		3.9	1.10		4.2	1.05	
1.5- You have or would have access to employment	1	4.0	1.05	0.62	3.9	1.28	0.75	4.0	1.12	0.64
	2	3.9	1.39		4.0	1.15		3.9	1.46	
2.1- You are included in your community	1	3.4	1.24	0.80	3.5	1.31	0.66	3.5	1.23	0.10
	2	3.4	1.30		3.4	1.23		3.1	1.34	
2.2- You have responsibilities to others in the community	1	3.1	1.17	0.34	3.4	1.24	0.12	3.2	1.16	0.78
	2	3.3	1.26		3.1	1.17		3.2	1.36	
2.3- You can influence your community or local government	1	2.6	1.19	0.52	2.5	1.29	0.34	2.6	1.20	0.51
	2	2.5	1.27		2.7	1.16		2.5	1.32	
2.4- You have knowledge about your community	1	3.4	1.26	0.16	3.5	1.27	0.57	3.4	1.24	0.39
	2	3.6	1.22		3.4	1.23		3.6	1.27	
3.1- You or your family have choices in education	1	3.6	1.20	0.27	3.7	1.29	0.91	3.7	1.22	0.82
	2	3.8	1.31		3.7	1.23		3.7	1.37	
3.2- You stand up for what you believe in	1	3.7	1.08	0.85	3.7	1.10	0.66	3.7	1.06	0.20
	2	3.7	1.01		3.7	0.99		3.9	1.01	
3.3- You have the right to be in a relationship with a partner of your choice	1	3.7	1.27	0.01**	4.0	1.18	0.26	3.8	1.26	0.02*
	2	4.2	1.05		3.8	1.21		4.3	0.89	
3.4- You have privacy	1	4.0	1.25	0.01**	4.2	1.14	0.67	4.1	1.21	0.07
	2	4.4	0.94		4.1	1.14		4.4	0.85	
3.5- You have the right to disagree with others	1	3.8	0.94	0.99	3.8	1.02	0.45	3.8	0.96	0.69
	2	3.8	1.00		3.9	0.91		3.9	0.99	
3.6- You can make choices about how you spend your money	1	4.2	1.08	0.65	4.4	1.05	0.11	4.2	1.13	0.41
	2	4.3	1.18		4.1	1.18		4.4	1.09	
4.1- You have access to adequate healthcare	1	4.2	0.87	0.96	4.2	1.03	0.95	4.3	0.79	0.03*
	2	4.2	0.92		4.2	0.74		4.0	1.12	
4.2- You have or could have access to adequate and affordable housing	1	4.0	1.10	0.22	4.1	1.17	0.03*	3.9	1.15	0.71
	2	3.8	1.28		3.7	1.17		4.0	1.30	
4.3- You would have access to public assistance, if needed	1	4.0	1.14	0.34	4.1	1.12	0.51	4.1	1.14	0.71
	2	4.1	1.20		4.0	1.21		4.0	1.26	
4.4- You have choices in your mental healthcare	1	3.8	1.14	0.99	3.9	1.24	0.18	3.8	1.24	0.47
	2	3.8	1.37		3.7	1.26		3.9	1.29	
5.1- You are treated with dignity and respect	1	4.1	0.85	0.77	4.0	1.03	0.48	4.1	0.87	0.49
	2	4.1	1.04		4.1	0.85		4.0	1.13	
5.2- Others feel accepted by you	1	3.9	1.07	0.36	4.0	0.96	0.75	3.9	0.97	0.04*
	2	4.0	0.73		3.9	0.91		4.2	0.77	
5.3- Others listen to you	1	3.8	0.98	0.44	3.9	1.10	0.43	3.8	0.97	0.21
	2	3.9	1.03		3.8	0.90		4.0	1.10	
5.4- Your personal decisions and choices are respected	1	3.8	0.92	0.25	4.1	0.97	0.04*	3.9	0.93	0.20
	2	4.0	1.00		3.8	0.94		4.1	1.03	

SD=Standard deviation; *p ≤ 0.05 ; **p ≤ 0.01

Table 2: Results to the Recovery Assessment Scale (*N*=173).

Items of the Recovery Assessment Scale	Group	Sex Group 1=Male (N=94) Group 2=Female (N=79)			Age Group 1=≤ 46 (N=85) Group 2=≥ 47 (N=88)			Marital Status Group 1=Single (N=130) Group 2=Married (N=43)		
		Mean	SD	Sig.2-Tailed	Mean	SD	Sig.2-Tailed	Mean	SD	Sig.2-Tailed
1.1- Fear doesn't stop me from living the way I want to.	1	3.7	1.17	0.44	3.8	1.15	0.36	3.6	1.15	0.10
	2	3.6	1.14		3.6	1.16		3.9	1.14	
1.2- I can handle what happens in my life.	1	3.8	0.82	0.30	3.9	0.83	0.67	3.8	0.81	0.04*
	2	4.0	0.87		3.9	0.85		4.1	0.91	
1.3- I like myself.	1	3.9	0.95	0.82	4.0	0.96	0.05*	3.8	0.94	0.30
	2	3.9	0.99		3.7	0.96		4.0	1.04	
1.4- If people really knew me, they would like me.	1	4.0	0.87	0.04*	4.1	0.83	0.63	4.0	0.83	0.07
	2	4.2	0.72		4.0	0.81		4.3	0.76	
1.5- I have an idea of who I want to become.	1	3.9	0.89	0.93	3.9	0.97	0.60	3.9	0.91	0.34
	2	3.9	0.95		4.0	0.86		4.1	0.94	
1.6- Something good will eventually happen.	1	4.0	0.89	0.49	4.1	0.87	0.40	4.0	0.91	0.10
	2	4.1	0.94		4.0	0.95		4.2	0.89	
1.7- I am hopeful about my future.	1	4.1	0.95	0.63	4.3	0.76	0.04*	4.1	0.92	0.44
	2	4.2	0.84		4.0	1.00		4.2	0.83	
1.8- I continue to have new interests.	1	3.9	1.00	0.24	4.1	0.91	0.05*	3.9	0.96	0.09
	2	4.1	0.91		3.9	1.00		4.2	0.94	
1.9- I can handle stress.	1	3.4	1.17	0.22	3.5	1.14	0.32	3.3	1.11	0.01**
	2	3.6	1.01		3.4	1.07		3.8	1.01	
2.1- I know when to ask for help.	1	4.3	0.72	0.05*	4.5	0.59	0.04*	4.3	0.67	0.06
	2	4.5	0.60		4.3	0.73		4.6	0.67	
2.2- I am willing to ask for help.	1	4.2	0.76	0.26	4.3	0.72	0.43	4.2	0.72	0.29
	2	4.3	0.73		4.2	0.77		4.3	0.82	
2.3- I ask for help when I need it.	1	4.2	0.74	0.09	4.4	0.62	0.03*	4.2	0.74	0.00***
	2	4.4	0.68		4.1	0.79		4.5	0.59	
3.1- I have a desire to succeed.	1	4.5	0.73	0.59	4.5	0.68	0.82	4.5	0.70	0.39
	2	4.5	0.58		4.5	0.65		4.6	0.55	
3.2- I have my own plan for how to stay or become well.	1	4.0	0.89	0.83	4.1	0.86	0.11	3.9	0.93	0.05*
	2	4.0	0.91		3.9	0.93		4.2	0.74	
3.3- I have goals in life that I want to reach.	1	4.1	0.91	0.41	4.0	0.92	0.07	4.1	0.88	0.38
	2	4.2	0.78		4.3	0.77		4.3	0.76	
3.4- I believe I can meet my current personal goals.	1	4.0	0.94	0.66	4.0	0.98	0.38	3.9	0.92	0.17
	2	3.9	0.94		3.9	0.89		4.1	0.97	
3.5- I have a purpose in life.	1	4.1	0.95	0.20	4.3	0.82	0.12	4.1	0.94	0.03**
	2	4.3	0.82		4.1	0.96		4.5	0.70	
4.1- Even when I don't care about myself, other people do.	1	3.6	1.09	0.03*	3.7	1.20	0.21	3.9	0.99	0.13
	2	4.0	1.03		3.9	0.94		3.6	1.28	
4.2- I have people I can count on.	1	4.2	0.97	0.93	4.3	0.95	0.49	4.1	0.97	0.08
	2	4.2	0.94		4.2	0.95		4.4	0.85	
4.3- Even when I don't believe in myself, other people do.	1	4.1	0.88	0.34	4.1	0.89	0.88	4.1	0.80	0.35
	2	4.2	0.66		4.1	0.68		4.2	0.75	
4.4- It is important to have a variety of friends.	1	4.2	0.92	0.42	4.1	1.06	0.55	4.0	1.02	0.13
	2	4.0	1.04		4.2	0.89		4.3	0.80	
5.1- Coping with mental illness is no longer the main focus of my life.	1	3.5	1.15	0.85	3.6	1.33	0.50	3.5	1.21	0.83
	2	3.5	1.41		3.5	1.21		3.6	1.44	
5.2- My symptoms interfere less and less with my life.	1	3.7	1.01	0.83	3.8	1.06	0.13	3.6	1.05	0.15
	2	3.7	1.06		3.5	0.98		3.9	0.93	
5.3- My symptoms seem to be a problem for shorter periods of time each time they occur.	1	3.6	1.14	0.22	3.6	1.19	0.52	3.6	1.06	0.33
	2	3.8	1.00		3.7	9.71		3.8	1.14	

SD=Standard déviation; *$p \leq 0.05$; ** $p \leq 0.01$; ***p=0.00

most significant difference is within the martial status grouping and concerns the *I ask for help when I need it item*. Three p = 0.01 were found for the sex sub-grouping (*You have the right to be in a relationship with a partner of your choice* and *You have privacy*), and for the marital status (*I can handle stress*). We found p = 0.02 in this latter sub-grouping, again for *You have the right to be in a relationship with a partner of your choice*. Five differences were found at p = 0.03. They concern the item *Even when I don't care about myself, other people do* for sex; the items *I ask for help when I need it* and *You have or could have access to adequate and affordable housing* for age; and the items *I have a purpose in life* and *You have access to adequate healthcare* for marital status. At p = 0.04, we found five significant differences for *If people really knew me, they*

would like me (sex) ; *I am hopeful about my future* and *I know when to ask for help* (age); *I can handle what happens in my life* and *Others feel accepted by you* (marital status). Finally, five differences were also found at p = 0.05. For the sex sub-group it was with the *I know when to ask for help* item, for age it was with the *I continue to have new interests* and *I like myself* items, whereas it was for the items *I ask for help when I need it and I have my own plan for how to stay or become well*, this time for marital status.

Discussion

Five significant differences ($p \leq 0.05$) were found in the sex category, 7 were found in the age category, and 8 were found in the marital status category, as respectively discussed in the following.

Sex

Male-female differences concern intimacy for females [Table 1], while being able to rely on others and have their approval when seeking help seeming less important for males [Table 2]. This is in line with Bayer and Peay who found that an ideology of masculinity, while promoting independence and "being strong", is mediated by attitudes and subjective norms that condition help-seeking intentions and behavior. [23]. Self-stigma is particularly known to be related to cultural and gender-role norms, with the consequence that men are less likely than women to seek help for their mental health and emotional distress. [24]. This suggests that here, the male-female divide relates to gender, rather than to sex. Typically, sex refers to given and unchosen biological attributes, whereas gender refers to socially constructed social roles that can change over time. [25].

Age

As per Table 1, it seems that older participants find it more difficult to access affordable housing, with the feeling that their personal choices are not respected. Table 2 also highlights differences in terms of self-confidence, and confidence in the future, between the youngest and oldest sub-groups, each time to the advantage of the youngest. And as with sex (gender), Table 2 also shows that age differences are influential in terms of help-seeking intentions and behaviours. [26]. This might be explained by the fact that help-seeking seems to become more acceptable in recent decades, from one generation to the next, as observed by Mojtabai. [27]. Yet, our study suggests that help-seeking is also very much mediated by marital status.

Marital status

As shown in Table 2, the sharpest difference we found among all sub-groupings (p = 0.00) concerns the single/married category for the *I ask for help when I need it* item [Table 2]. It might be easier for a married couple to rely on each other or help each other to recognize a need for help, and to have a purpose to become and stay well. Our data suggest that single people would feel more subject to stress, and to be less in control, than people in a couple. It also seems that it is not solely by choice that single people are single, given the fact that they report difficulties in being in a relationship, and being accepted by others [Table 1].

Implications for practice

Family practice plays an important role in the identification and encouragement of persons with diverse mental health problems and needs, to get help. [28]. Fortunately, challenges to help-seeking might just not be the same as those of help-offering. In their study, Cheshire, Peters, and Ridge found that help provided in a gender-sensitive way, for example, can engage men of diverse age, ethnicity, and class, with positive outcomes for men's well-being. [29] Such an approach to help-offering could also minimize the self-stigma many feel with regards to gender, age, or marital status, separately or in combination.

Social support is globally believed to influence help-seeking, [30] but still many prefer to first manage their mental health challenge by drawing upon their own personal strength. When people do seek help, then they seem to first turn to their immediate surrounding network. [31]. But still, it might be difficult for individuals, in the first place, to recognize their own emotional distress. [32,33]. When they do, they can remain reluctant to talk to a health professional about it because of (self-) stigma [34] or because they think that there is nothing doctors can do to help [35]. Moreover, symptoms of depression, particularly for men, are often expressed through somatic symptoms, like pain or sleep problems, [36]. which makes it difficult for primary care providers to recognize underlying emotional distress, even more so when their patients do not want to disclose or talk about it anyway. And on the other way around, LTCs often trigger subsequent mental health problems for patients being monitored in primary care, like anxiety with chronic pain [37]. or depression when under treatment for, or in remission from, cancer. [38].

Alderson and colleagues [35] suggest that understanding patients' reasons for presenting in family practice can facilitate the targeting of primary care providers time and therapeutic efforts, and guide more individualized care. Reasons for not presenting need to be acknowledged too. In line with this recommendation, we suggest that self-rating recovery needs with Patient Reported Outcome Measures, such the CM and RAS, may facilitate the targeting towards self-help groups and peer mentorship. These are key features of a genuine and efficient recovery approach [39,40] because persons with a history of mental disorders can relate particularly well with service users and facilitate their recovery by acting as role-models through positive self-disclosure. [41].

In fact, fewer than half of the individuals suffering from a mental illness consult for a mental illness [42]. These persons can, rather, seek help from health services for other reasons, for example to discuss a problem which, in their view, does not necessarily represent per se a diagnosable disease. Several will seek help and support from their immediate informal network, and in more natural settings than formal health services. Many do manage to live independently from any medical intervention. Some self-management strategies are more efficient than others, and some are even superior to care as usual. [43]. People who have themselves "been there" are considered to be the best placed to know and explain how to use community resources in support of such strategies in order to become and stay well. Peer support and recovery mentorship have been shown effective in mental health compared to treatment as usual, [44]. and this now

evidence-based practice can also be applied from the personal recovery self-help tradition to that of physical health. [45].

Assessments can be done with observational scales conceived and used by clinicians, but when the same instruments are used by patients, they are considered to be PROM tools. PROMs play an increasingly important role in health care, as suggested by Weldring and Smith, because they allow patients to provide information that is needed to assess the effects and quality of care from their own point of view, rather than from someone else's. [46]. Among other features that the CM and the RAS have in common, is that they both were initially developed as PROMs for program evaluation, even in large part conceived and validated by patients with a community-based participatory approach. [47]. This approach to research directly involves persons with primary interest in planning and designing the research. [48]. This is in line with another central recovery principle that people with the lived experience should be involved in planning, evaluation, and provision of services.

To know whether an individual's status has improved, we need to ask that individual. [49]. To do so, using PROMs such as the CM and RAS, which were both generated from a consumer, rather than from a professional's perspective, is a way to acknowledge their ownership and authorship of recovery and citizenship. The CRCI could be tested with individuals who live with an LTC with relatively minor adaptations (e.g. retrieving the word "mental" for the *Coping with [mental] illness is no longer the main focus of my life* RAS item). In terms of research, what could also be done would be to guide patients to community-based self-help groups and recovery mentors and evaluate the health outcomes in terms of service use (and non-use) or quality of life, for example.

Gender, age, and marital status-specific information on available self-help groups and efficient self-help strategies could be handed to patients being monitored in primary care settings without their necessarily having to ask for it, if they do not want to, nor think of asking for it. This might prevent the escalation of problems and additional costs, [50]. especially as people who are adequately self-managing their condition are less likely to recourse to health services. [51]. We also need to think how to reach people who will not come, no matter how appealing or user-friendly we try to make it, with appropriate self-help and self-care strategies information, including civic recovery mentorrship.[52] We suggest that it is also a question of health equity to respect such a preference.

Limitations

Performing a t-test is only a means to observe statistically significant differences between two samples on particular items, or clusters of items, of a scale. Several differences were empirically found between sub-groups of participants of this study, but it remains a paradox to gauge and reduce such very complex and deeply personal identity-related constructs to some p-values. However reductionist, these results suggest the need to better understand what can be offered in order to support individuals in their own civic recovery journey. The groupings we made to test the null hypothesis with t-tests are useful for research purposes, but arbitrary from a consumer's point of view. For example; sex does not equal gender; the 47 years old median does not mean that being 46 is representative of being young or that being 47 is representative of being old; and single participants might be overrepresented because of the disproportionate representation of persons with schizophrenia in this study. More research is needed to explore challenges to help-seeking and to help-non-seeking as well. Other statistical models or qualitative analyses might better assess real life combinations, for example for single and older men, combined with ethnicity, sexual orientation, and so on.

Conclusion

We wanted to verify if some significant differences to the Civic Recovery Composite Index could be observed through statistical analysis, and several were. This paper confirms significant sex, age, and marital status differences, with the particular commonality that these differences point to challenges in terms of help-seeking. Help-seeking does not necessarily mean professional help-seeking. Further research is needed to explore other possible sub-group differences and combinations for personalized citizenship- and recovery-oriented care and support in family practice or any other informal settings from a consumers' point of view. This can be done with self-rating scales that can facilitate understanding and communication with the doctor, and also in relation to oneself and others.

Ethics Approval and Consent to Participate

This study was approved by the Institutional Review Board of *Institute universitaire en santé mentale de Montréal* (affiliated with the University of Montreal) and written informed consent for participation in the study was obtained from all participants. Protocol #2011-31. This study was funded by the *Fondation de l'Institut universitaire en santé mentale de Montréal* (CR-IUSMM/CIUSSS-EMTL).

Conflict of Interest

All authors disclose that there was no conflict of interest.

Funding

This study was funded by the Fondation de l'Institut uiversitaire en santé mental de Montréal, Montreal, Canada.

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