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Expert Opinion Article

The Chinese version of the Citizenship Measures: Internal consistency and test-retest reliability among Chinese adults in mental recovery

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ABSTRACT

Citizenship is a person's connection to the 5 R's of rights, responsibilities, roles, resources, and relationships. This study aimed to develop the Citizenship Measures (CM) (Chinese) and test its internal consistency and test-retest reliability followed by assessing the degree to which individuals in recovery in Hong Kong engaged with social citizenship. The original English version was translated into Chinese, and then back-translated, followed by a cognitive interview. Individuals aged ≥18 years who were receiving community mental health services completed the CM (Chinese). An overall Cronbach's alpha of 0.96 was found, indicating excellent internal consistency. The intraclass correlation coefficient was 0.83, indicating good test-retest reliability. The CM (Chinese) is a reliable tool for assessing the degree to which individuals in recovery in Hong Kong perceive themselves to be citizens and measuring changes in the seven clusters associated with citizenship between two assessment time-points.

KEYWORDS: Recovering citizenship; mental illness; community integration; citizenship measures, recovery

Introduction

Recovery, an inspiring concept in community mental health since the 1980s, is a promising and innovative framework for the development of community services in different Western countries and Hong Kong (Slade, 2009; Anthony, 1993; Deegan, 2003; Le Boutillier et al., 2011; Tew et al., 2012; Tse et al., 2012). Recovery models allow people with mental illness to take control over their lives and build resilience, rather than returning to a premorbid level of functioning and symptom resolution (Pratt et al., 2013; Jacob, 2015). Although there are different definitions of recovery, it is generally described as a process, not a destination of healing. A team from the Yale Program for Recovery and Community Health (Yale-PRCH) emphasizes recovery as a process through which people reclaim their lives even while continuing to experience symptoms of mental illness (Rowe & Davidson, 2016). Being in recovery, they write, is particularly relevant for people who have persistent, unremitting health conditions, that is, those for whom "clinical recovery" may not occur, especially those with serious mental illness, but who may still live meaningful lives even in the context of a continuing and possibly unremitting psychiatric condition. In the late 1990s, the citizenship concept was articulated and being, in part, the responsibility of one's community, not only of the individual with mental illness and mental health systems of care (Rowe et al., 2001; Rowe & Davidson, 2016). Citizenship is defined as a person's strong connection to the 5 R's of the rights, responsibilities, roles, resources, and relationships that society offers its members, and a sense of belonging in society through public and social institutions and associational life (Rowe, 1999; Rowe et al., 2001). Recovering citizenship (RC), therefore, is not simply recovery in the sense of "having a life" but possessing the 5 R's and also being recognized as having equal status in society along with others (Rowe & Davidson, 2016). An application of the citizenship approach was developed starting in the early 2000s to help people with psychiatric disabilities build productive and fulfilling lives in their communities (Citizens Project Manual, 2019). We believe that a combination of the recovery model and the recovering citizenship can complement each other by recognizing the strengths, abilities, and resources that individuals possess, and enhancing the strength of a person's connection to the 5 Rs of rights, responsibilities, roles, resources, and relationships. By adopting these two approaches, the care provided to people in recovery can be more comprehensive, diverse, and effective to meet variations of the mental health needs of individuals. People with serious mental health usually experience much more difficulties in the recovery process compared to those with mild and moderate mental disorders. The serious condition of their illnesses would probably inhibit them from integrating with other members of the community because of stigmatization. Services and programs that adopt the recovering citizenship concept would emphasize support and resources to help these individuals establish their valued roles and

responsibilities in the community and facilitate regaining rights and opportunities that many of them have lost.

This six-month Citizens Project combines group skill-building with peer support within a social program linked to treatment providers and the community at large. Core project components include classes built on the themes of the 5 R's of community membership, a mutual support group run by students, individual and group peer mentor support, and valued role projects developed by students. A randomized control trial showed that the citizenship intervention could have facilitated the participants to build a life in the community, and increased knowledge of community resources and programs which resulted in increased quality of life with greater satisfaction with an amount of community activity, higher satisfaction with work, and reduced use of alcohol and drugs (Clayton A et al., 2013). This program has received increasing attention in mental health services in cross-cultural contexts in recent years. The citizenship concept has been incorporated and studied in mental health projects of other countries, including the Citizenship project in Spain (Eiroa-Orosa & Rowe, 2017), Project Citoyen in Quebec (Pelletier et al., 2017), the Connecting Citizens in Scotland (Turning Point Scotland, 2024; Stewart et al., 2017), and Project Connect in the U.S. (Bromage et al., 2017). Findings have shown improvement in the quality of life of people in recovery, enhancement of their sense of efficacy and belonging, minimizing self-stigma of people as well as allowing them to have the right to choose the ways which were helpful for them to connect with the community.

The Citizenship Measures (CM) was developed using community-based participatory methods to assess the strength of people's connection to the 5 R's of rights, responsibilities, roles, resources and relationships, and a sense of belonging in society (Rowe et al., 2012; O'Connell et al., 2017). It consists of 46 items asking how much the item applies to the respondents on a 5-point Likert scale (5=A lot / Very often, 3= Sometimes, 1=Not at all / Never). Items were identified in seven different clusters including personal responsibilities, government and infrastructure, caring for self and others, civil rights, legal rights, choices, and world stewardship. Cronbach's alphas revealed that the internal consistency of the scale ranged from the lowest of 0.56 (government and infrastructure cluster) to the highest of 0.86 (personal responsibility cluster) (O'Connell et al., 2017). For convergent and discriminant validity, correlation analysis showed that the overall scores on the citizenship measure were positively associated with scores on quality of life, individual recovery, and overall sense of community and its subscales. The CM could be used to collect self-reported information on the extent to which people in recovery experience the seven dimensions measured.

Richmond Fellowship of Hong Kong (RFHK) is a non-governmental organization providing community mental health services. Several RFHK staff received training from Yale-PRCH in January 2020 to adopt the citizenship concept to community mental health services and conduct a Citizens Project, with adjustments for the Chinese cultural context. A vast majority of the population in Hong Kong speaks Cantonese or other Chinese dialects as a first language. No other validated measuring tools to assess citizenship were available at the time of the study. To assess the citizenship-promotion capacity of the Citizens Project, the citizenship-supporting aspects of clinical care, and identify areas of citizenship strength and vulnerability for the clients' citizenship work, a validated Chinese version of CM (CM (Chinese) was needed to assess the strength of people's connection to the 5 R's among the Chinese sample.

In this study, the development of the CM (Chinese) for the assessment of citizenship of the Citizens Project will be described. The objectives were to evaluate the reliability of the CM (Chinese) by testing its internal consistency and test-retest reliability with a sample of people in recovery who were receiving community mental health services.

Research questions to be answered:

(1) What are the internal consistency and test-retest reliability of the CM (Chinese)?

(2) What is the mean score of the overall citizenship of a group of individuals who are receiving community mental health services?

(3) What are the mean scores of the seven clusters of a group of individuals who are receiving community mental health services?

Method

Translation

The original English version of the CM (Rowe et al., 2012) was provided by the U.S. research team. Two staff members of RFHK, who were native Chinese and proficient in English, and had work experience in recovery and mental health, independently translated the CM from English into Chinese. Discrepancies between the two translators were discussed until a consensus was reached. The initial translation was then back-translated into English independently by two other staff members who were also native Chinese with proficiency in English and similar work experience in recovery and mental health. The two back-translated copies were synchronized and further reviewed by the developer of the original English version of the CM to identify any discrepancies and suggest expressions or concepts to improve the accuracy of the translation.

Eight service users and two other staff members were invited to pre-test the Chinese version followed by a cognitive interview to provide insight into their perceptions in which individuals would verbalize thoughts and feelings as they examine the question items. The service users were people in recovery, 18 years of age or above, and were receiving community mental health services at RFHK. The two staff members were working in recovery and mental health. Informed consent for participating in the study and using the data collected was obtained. In the cognitive interview, participants were asked what they thought the item was asking, repeating the item in their own words, explaining how they chose their answer in the pre-test, and identifying any item or word they did not understand or found unacceptable or offensive. Finally, they were asked if a revision of the item was necessary. The final version of CM (Chinese) was developed following these iterations.

Pilot-testing of The Final Version

Individuals receiving services from RFHK were invited to pilot-test the CM (Chinese). A convenience sampling approach was used. Inclusion criteria for participants were people in recovery, 18 years of age or above, who were receiving services including community mental health support, residential training, and/or integrated vocational rehabilitation. They were diagnosed with various mental illnesses such as depression, schizophrenia, bipolar disorder, and anxiety disorder. Those who did not understand Chinese, or were unwilling to provide informed consent for participation and using the data collected were excluded from the study. The purpose and procedures of the study were explained before signing the informed consent. Respondents spent approximately 20-30 minutes completing the CM (Chinese).

Statistical Analysis

Quantitative analysis of pilot-testing of the final version was performed using IBM SPSS statistics (version 26.0) (IBM Corp., 2019). The total mean scores of citizenships and the composite mean scores of the seven clusters were computed. Relationships of socio-demographics and mean scores of the overall citizenships and the seven clusters were analyzed with one-way ANOVA followed by post-hoc, or Spearman's correlations. Cronbach's alpha coefficient was used to evaluate the internal consistency of the seven clusters and the total mean scores. A Cronbach's alpha coefficient of 0.70 was considered acceptable, while values above 0.80 are good, and above 0.90 are strong and excellent (Taber, 2017). For test-retest reliability, the intra-class coefficient (ICC) was used to determine the agreement of the clusters and the total mean scores between the first and second assessments. ICC values between 0.50 – 0.75 indicate moderate reliability, values between 0.75 – 0.90 indicate good reliability, and greater than 0.90 are considered excellent (Koo, 2016).

The study was approved with ethics considerations by the Research Committee of the Richmond Fellowship of Hong Kong (Reference number: RFRC-201801-02).

Results

Respondents' Socio-demographics

A total of 211 service users completed the CM (Chinese) for assessment of internal consistency. A subgroup with 101 participants also completed the same CM (Chinese) four weeks after the first assessment for the test-retest reliability evaluation. For the whole sample, 58% were female (n=123) with a mean age of 46.36 years ± 12.96. Most had attained secondary education (n=160, 77%) and, 62% were working in open employment, sheltered workshops, or receiving supported employment services. Forty-six percent were receiving residential training (n=98), followed by 33% receiving community mental health support (n=69) and 32% receiving vocational rehabilitation (n=67) (Table 1). For the subgroup, 54% were female (n=54) with a mean age (46.23 years ± 13.25) and education level (n=77, 76% attained secondary school) similar to the full sample. Fifty-three percent were working in open employment, sheltered workshops, or receiving supported employment services.

Table 2 shows the mean scores of the overall citizenship as well as those of the seven clusters. The overall citizenship mean score was 3.38±0.64 (Highest possible mean score = 5). The respondents had the highest mean score on "Choices" (3.54 ± 0.70), and the lowest mean score on "World stewardship" (3.14 ± 0.78). Significant positive correlations were observed among the overall citizenship and the seven clusters' mean scores ($p \leq 0.01$). Regarding relationships between socio-demographics and the mean scores of overall citizenships and the seven clusters, only age was found significantly correlated with the cluster score of "Caring for self and others" ($r=0.15$, $p=0.027$). One-way ANOVA analyses were also used to compare the differences between different socio-demographic profiles. Males had significantly lower scores on civil rights compared with females ($p=0.028$). Those who had attained primary education or below had significantly lower scores on "Choices" than those with secondary education ($p=0.046$). Those who were working in sheltered workshops also had significantly lower scores on "Personal responsibility" compared with those with open employment ($p=0.026$). Those who were not

receiving residential training had significantly lower scores on "Government and infrastructure" (p=0.039).

Table 1 Socio-demographic of Respondents Who Completed the Citizenship Measures (Chinese) and of Subgroup Who Completed The Repeat Scale

	Completed the first CM	**Subgroup completed the repeat CM**
	N=211 (%)	**N=101 (%)**
Sex		
Male	88 (41.7%)	47 (46.5%)
Female	123 (58.3%)	54 (53.5%)
Age (yrs)	46.36 ± 12.96	46.23 ± 13.25
Education		
Primary or below	21 (10.0%)	8 (7.9%)
Secondary	160 (75.8%)	77 (76.2%)
Tertiary	14 (6.6%)	6 (5.9%)
University or above	13 (6.2%)	7 (7.0%)
Missing	3 (1.4%)	3 (3.0%)
Employment		
Unemployment / between jobs	44 (20.9%)	27 (26.7%)
Sheltered workshop	66 (31.3%)	14 (13.9%)
Supported employment	23 (10.9%)	12 (11.9%)
Open employment	32 (15.2%)	22 (21.8%)
Others	30 (14.2%)	16 (15.8%)
Missing	16 (7.6%)	10 (9.9%)
Service receiving *(allow >1 option)*		
Vocational rehabilitation	67 (31.8%)	9 (8.9%)
Residential training	98 (46.4%)	70 (69.3%)
Community mental health support	69 (32.7%)	34 (33.7%)
Mental health hotline	15 (7.1%)	3 (3.0%)
Mental health mutual support network	10 (4.7%)	7 (6.9%)
Others	2 (0.9%)	1 (1.0%)
Missing	1 (0.5%)	1 (1.0%)

Table 2 Correlation Matrix: Clusters of Citizenship

	CM (English)		CM (Chinese)								
Clusters	Mean	SD	Mean	SD	1	2	3	4	5	6	7
Overall citizenship	3.7	0.7	3.38	0.64	0.95**	0.80**	0.81**	0.88**	0.88**	0.91**	0.80**
1) Personal responsibility	3.8	0.8	3.40	0.69	1						
2) Government & infrastructure	3.3	1	3.27	0.77	0.72**	1					
3) Caring for self & others	3.4	0.9	3.32	0.79	0.72**	0.57**	1				
4) Civil rights	3.6	0.8	3.32	0.75	0.79**	0.66**	0.66**	1			
5) Legal rights	3.8	0.9	3.48	0.75	0.80**	0.70**	0.70**	0.71**	1		
6) Choices	4.0	0.8	3.54	0.70	0.86**	0.69**	0.70**	0.77**	0.75**	1	
7) World stewardship	3.6	1	3.14	0.78	0.73**	0.58**	0.65**	0.62**	0.70**	0.65**	1

Note. **p ≤0 .01

Internal Consistency

Cronbach's alpha is a measure to assess the internal consistency or the reliability of a set of items. The CM (Chinese) had an overall Cronbach's alpha of 0.96 indicating excellent internal consistency (Table 3). The cluster of "Personal responsibilities" which comprised the largest number of question items, had the highest Cronbach's alpha of 0.88. "Choice", "Civil rights", and "World stewardship" also showed good internal consistency with alpha values in the range of 0.81 - 0.85. "Legal rights" and "Caring for self and others" had internal consistency with Cronbach's

alpha values of 0.78 and 0.71, respectively. "Government and infrastructure" with only four question items had a Cronbach's alpha of 0.61.

Test-retest Reliability

As shown in Table 3, the ICC of the CM (Chinese) was 0.83 indicating good test-retest reliability. The seven clusters showed ICC values in the range of 0.71 – 0.84 which denoted moderate to good reliability, with the highest test-retest reliability in "World stewardship" and lowest in "Caring for self and others".

Table 3 Internal Consistency and Test-retest Reliability of The CM (Chinese)

	Internal Consistency	**Test-retest Reliability**
	Cronbach's Alpha	**ICC (95% CI)**
Whole questionnaire (46 items)	0.96	0.83 (0.74 – 0.88)
Clusters		
Personal responsibility (11 items)	0.88	0.78 (0.68 – 0.85)
Government & infrastructure (4 items)	0.61	0.76 (0.65 – 0.84)
Caring for self & others (4 items)	0.71	0.71 (0.57 – 0.81)
Civil rights (8 items)	0.82	0.80 (0.71 – 0.87)
Legal rights (5 items)	0.78	0.81 (0.72 – 0.87)
Choices (9 items)	0.85	0.75 (0.62 – 0.83)
World Stewardship (5 items)	0.81	0.84 (0.76 – 0.89)

Discussion

Recovering citizenship is a relatively new concept in community mental health, particularly in Asian countries. The Citizens Project supports the connection to the 5 Rs which enhance valued roles in the community and social inclusion. We replicate the Citizens Project and deliver to people with mental disorders in Hong Kong. The CM (Chinese) serves as the sole validated measuring tool to assess their citizenship. Data collected provide evidence to support and for further improvement of the Citizens Project and other recovery-related mental health programs and services, as well as a better understanding of the citizenship of the individuals in the recovery process.

The assessments of internal consistency and test-retest reliability indicate that the CM (Chinese) is a reliable tool for studying the degree to which people in recovery perceive themselves to be citizens in a multifaceted sense including personal responsibilities, government and infrastructure, caring for self and others, civil rights, legal rights, choices, and world stewardship, as well as evaluating the changes of these clusters of citizenship before and after an intervention or between two time-points. The CM (Chinese) is the only measuring instrument available to study the recovery of citizenship of the Chinese population.

Internal consistency indicates the extent to which the CM (Chinese) is a consistent measure. Six of the seven clusters demonstrated acceptable to good internal consistency. "Government & infrastructure" showed the lowest Cronbach's alpha. These results were similar to that of the original CM. Both the original and Chinese versions had the highest internal consistency in "Personal responsibility" (Original: 0.86; Chinese: 0.88) and lowest in "Government and infrastructure" (Original: 0.56; Chinese: 0.61) (O'Connell et al., 2017). These findings could relate to the fact that "Personal responsibility" was the largest cluster with 11 items, while "Government and infrastructure" was comprised of only four items. The number of items positively affects Cronbach's alpha. If the number of items is inferior to five, a lower Cronbach's alpha coefficient of 0.65 is acceptable. Similarly, if the number of items is superior to 10, the value of Cronbach's alpha coefficient could be as high as 0.90 (Streiner & Norman, 1995). The internal consistency of the seven clusters in the CM (Chinese), therefore, is good or acceptable.

Test-retest reliability was performed to study whether the CM (Chinese) could be used to evaluate participants' progress at the beginning and after the Citizens Project or other recovering citizenship-related programs. The ICC values of the whole measuring tool and the seven clusters indicated good reliability. The CM (Chinese) is reliable in measuring changes in these seven clusters which are associated with citizenship before and after the intervention.

In the pilot study, the overall citizenship mean score was 3.38 ± 0.64 which indicated that the service users of our agency only "sometimes" perceived themselves as citizens in the community or involved in citizenship-related activities. Compared with the sample in the reliability and validity assessment of the original CM (O'Connell et

al., 2017), their respondents had an overall citizenship score of 3.70±0.70, showing that their individuals experienced a higher extent of rights, roles, responsibilities, resources, and relationships in the community.

Among the seven clusters, "Choices" was the cluster that respondents endorsed most strongly. They perceived that they "sometimes" or "often" had personal freedoms, were being respected for their decisions and choices, had freedom of expression, and had personal choices regarding their care and other needs. O'Connell's study obtained similar results, with "Choices" as the cluster with the highest score (4.00 ± 0.80) (O'Connell et al., 2017). Freedom of choice is vital to people in society, including people with disabilities. The choice is a cornerstone of recovery as it promotes self-determination and reflects people's sense that their individual decisions are respected (Ashcraft et al., 2008). If people lose the opportunity to make choices, they may have less confidence in their ability to choose (Chamberlin, 1997). "World stewardship", however, was the dimension in which our respondents were least likely to be engaged. In the CM (Chinese), this dimension included giving back and taking care of others, community engagement, and community leadership. In O'Connell's study, "World stewardship" was in the middle among the seven clusters with a score of 3.60±1.00, indicating that respondents experienced a higher degree of stewardship role than respondents in the Hong Kong study (O'Connell et al., 2017). Developing an active stewardship role in the community is a challenge to many people in recovery due to a lack of opportunity or capability. Social inclusion and acceptance in the community are crucial. Our community has to further facilitate access to citizenship for people with mental illness. Promotion of and education regarding recovering citizenship in the community are exceptionally important. The general population and employers should understand the potential of people in recovery and recognize that they can play significant roles and carry responsibilities in society. In our study, people in recovery seemed to lack the opportunity to take care of others and give back to the community as well as engage in community activities. Some of them might not know how to engage in the community and have difficulties recognizing their strengths and abilities. The Citizens Project can provide an opportunity to discuss their preferences, assist them in identifying their competencies, and further explore ways to give back to the community, such as participating in fundraising and charity events, volunteering in the community, and engaging in recycling and waste reduction programs, etc.

In Hong Kong, many mental health service providers deliver services based on the ten principles of the recovery model. Some refer to the CHIME model as incorporating the elements of connectedness, hope, identity, meaning, and empowerment into service programs as well (Chu, 2020). Individuals, families, peers, communities, and service providers are recommended to collaborate to provide peer-led programs, programs that focus on personal responsibilities and self-management, and strength-based approach programs that focus on valuing and building on multiple capacities, resilience, and talents of the individuals (Siu et al., 2012; Siu & Sung, 2013; Chu 2020).

Compared to recovery-oriented interventions, recovering citizenship focuses more on people's lives in the community and recovering from their valued membership in society. The community plays an important role in the practice of citizenship. As mentioned earlier, the Citizens Project is the major citizenship intervention which consists of five core components: (i) The non-traditional classes built around the 5 Rs and is recommended to be taught by peers and community members; (ii) The valued role projects allow people in recovery to make positive contributions and show their potential to the community; (iii) Peers lead the Citizens Project to connect with people in recovery; (iv) "What's up" to share and explore what happened in lives, and to develop relationships with others; and (v) the Graduation ceremony to recognize their achievement (Rowe et al., 2023).

Self-stigma can have a significant impact on the process of recovering citizenship. Self-stigma refers to the internalized shame, blame, hopelessness, guilt, and fear of discrimination associated with mental illness (Corrigan, 1998). In the context of recovery, self-stigma could lead to feelings of inadequacy, shame, and a lack of confidence and self-esteem. Hong Kong Chinese were more easily affected by the public stereotype of mental illness hence turning it into their self-stigma (Fung et al., 2007). Self-esteem and self-efficacy, life satisfaction, and social adaptation would also be negatively affected by the internalization of stigma which is considered a serious obstacle to the recovery process (Fung et al., 2007; Mak & Cheung, 2010).

Regarding recovering citizenship, self-stigma may hinder people in recovery's willingness to build relationships with others, take up responsibilities, establish roles in the family and society, and pursue their goals, as their self-esteem and self-efficacy are disrupted. They may even hesitate to believe that they should fully possess the same rights as other members of the community. As individuals with self-stigma may fear judgment or discrimination, this could result in a lack of involvement with community activities as well as community inclusion.

Caseworkers should be aware of the self-stigma of individuals when implementing the recovering

citizenship concept in services. Understanding factors contributing to self-stigma, and providing individualized interventions and culturally sensitive support services addressing their self-stigma may diminish the barriers and facilitate their connection of the 5 Rs and belongingness in recovering citizenship. Further studies are necessary to assess self-stigma and its impact on recovering citizenship.

In the Chinese culture, people usually rely more on those who are older and more mature. They might have a greater responsibility to take care of their families, children, and friends. Age, therefore, was found to be significantly and positively correlated with "Caring for self and others". Regarding "Choices", those who only attained primary education or below were found to have less opportunity to make choices. In general, people might have a perception that those with lower education cannot make "good" choices and therefore do not allow them to choose, or they lack the confidence to make choices for themselves. Compared with those with open employment, respondents working at sheltered workshops perceived themselves as having lower personal responsibilities. One of the aims of sheltered workshops is to promote self-esteem and community tenure, however, in reality, the workers usually cannot gain these benefits (Cheng et al., 2015). In sheltered workshops, workers have to follow instructions from the job coaches. In the long run, workers' autonomy might be weakened, and they tend to bear fewer personal responsibilities. Similar to those who were receiving residential training or in other words, living in half-way houses, they were provided with varied community resources and more opportunities to be involved in social services. This could explain their stronger connection with "Government and infrastructure".

Leaders and policymakers could consider the findings from this study for the development of effective strategies to promote recovering citizenship and community inclusion for people in recovery. The government is advised to engage with social and health professionals, advocacy groups, and individuals with lived experience to regularly review the legislation to ensure that it adequately reflects the needs and concerns of people in recovery as well as eliminate stigmatization and enhance the protection of people with mental illness. To further emphasize the valued role and responsibilities of peers in the community, peer-led programs and integration of peer support services could be further supported by the government to facilitate opportunities for individuals with lived experience to engage with and support each other. Findings from this study may also help mental health organizations and researchers identify and strengthen 'citizenship activities' in community services. Common barriers encountered in the community and ways to address them should be studied to facilitate people's involvement in community life.

A convenience sampling method was used in this pilot study and respondents were recruited from only one community mental health organization, though they were receiving a wide spectrum of mental health services. Respondents who were willing to complete the survey probably might have had a higher awareness of or were more attracted than others to the citizenship concept, thus overall citizenship and scores on the seven clusters may be overestimated compared to a randomly selected sample of people in mental recovery. A validity test was not performed on the CM (Chinese). Instead, a cognitive interview was conducted with people with mental illness to evaluate respondent interpretation of each item to identify misalignment with the intended meaning. The CM (Chinese) was tested with a sample of Chinese in the Hong Kong region. Their attitudes toward mental illness could be influenced by a mix of traditional Chinese beliefs and Western influences as Hong Kong was a British colony for 156 years until year 1997. Confirmation of psychometric properties is recommended if using this tool with Chinese in other countries or regions.

Conclusions

This study confirms the internal consistency and test-retest reliability of the CM (Chinese) in people in recovery in the Hong Kong region. In the pilot study, the overall citizenship mean score indicated that the subjects “sometimes” perceived themselves as citizens in the community or involved in citizenship-related activities with the highest mean score on “Choices” and the lowest mean score on “World stewardship”. The tool can be used in assessing the seven clusters related to social citizenship and for comparing citizenship scores before and after an intervention, thus facilitating targeting service needs of individuals and identifying areas for program and service development and improvement.

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