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Perceived assistance in pursuing personal goals and personal recovery among mental health consumers across housing services

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ABSTRACT

Personal goals/plans play a central role in personal recovery and psychiatric rehabilitation of persons with mental illnesses. Yet, few studies have explored whether perceiving practitioners' assistance towards the pursuit of goals are associated with personal recovery and other favorable rehabilitation outcomes. A total of 2121 mental health consumers, of which 1222 use supported-housing services and 899 use group-home services, completed self-report questionnaires as part of a larger quality-assurance study conducted during the years 2013–2014. Eighty percent of participants living in supported-housing and 72% living in group-homes reported having personal goals/plans for the forthcoming year. Furthermore, their type of goals was different. Irrespective of the type of goal or housing service, participants who reported having goals/plans (compared with those who did not) showed higher levels of personal recovery and more favorable psychosocial outcomes. Regression analyses showed that perceiving professional staff members (but not para-professionals) as assisting in pursuing goals/plans was positively associated with personal recovery. This study empirically validates the value of having personal goals and professionals' assistance in pursuing goals/plans in regards to personal recovery. We propose that recovery-oriented services should seek to enhance goal setting and goal-pursuit, and to train practitioners in these areas.

1. Introduction

The field of mental health has been on a transformational path since the mid-1990s, with policy and practice shifting from a sole focus on clinical treatment of symptoms towards a recovery-oriented approach (Adams and Grieder, 2005; Anthony, 1993; Borg et al., 2009; Davidson, et al., 2009). In parallel, a distinction has been made in the literature between *clinical recovery* and *personal recovery*. The former is commonly understood as an objective outcome judged by an observer with emphasis on symptom reduction and effective treatment (Andersen et al., 2010; Slade, 2009, 2010), while the latter – *personal recovery* – refers to subjective experiences involving a process of transformation in attitudes to life and illness, with emphasis on the role of hope and optimism about the future despite mental illness (Andersen et al., 2003, 2010; Leamy et al., 2011). Individuals with mental illnesses in personal recovery report on empowerment and community integration and take-on responsibility for their own well-being (Deegan, 1996; Moran and Nemec, 2013). Internationally, mental health systems are veering services to a personal recovery focus (Slade, 2010), and this more subjective and psychological aspect of recovery is also the area of interest in the present study (henceforth on referred to as "recovery").

Goal striving is known as a facilitator of psychological recovery (Andersen et al., 2003). Recovery occurs when individuals with mental illness discover, or rediscover, their strengths and abilities for pursing *personal goals* that allow them to grow beyond their mental illness and develop a sense of identity (Mueser et al., 2002). Slade (2010) further proposed to include personal goals in service evaluation, in addition to the traditional focus on attainment of valued social roles. This addition is expected to support the development of new meaning and purpose in one's life. Personal goals are closely related to the recovery process because they are often accompanied by self-directedness enabled by having a sense of hope (Andersen et al., 2003; Deegan, 1996; Leamy et al., 2011). The association between hope and goal striving can be understood on basis of the Snyder's hope theory: in his theory Snyder defines hope as comprising of: (i) identifying goals, (ii) developing pathways to meet desired goals, and (iii) a belief in one's ability to attain goals. Snyder et al. (2006) has suggested that the hope construct may be helpful in fostering adaptive rehabilitation processes. Along similar lines, Clarke et al. (2006) maintained that, establishing

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personally meaningful goals with people with psychiatric disabilities promotes hopefulness and motivation regarding one's recovery. Generally, goal setting is an important part of psychosocial rehabilitation and a focus of many case-management interventions. An illustrative example is the Collaborative Goal Technology which is a goal striving technology used to support the autonomy and recovery processes of persons with psychiatric disabilities (Clarke et al., 2006). Training staff in goal setting techniques was found to significantly improve the frequency and quality of documenting goals by the consumers (Clarke et al., 2009a). Yet these studies did not examine the association of personal goal formulation, per se, with personal recovery. Such a putative association was tested in the present study.

Many psychiatric rehabilitation programs have incorporated support for pursuing personal goals as part of the treatment protocol. For example, in a study employing the Boston University model of Diagnosis, Planning and Intervention, 65% of consumers had largely achieved their self-formulated rehabilitation goals and manifested significant improvement in psychosocial functioning (Svedberg et al., 2014). Additionally, psychiatric rehabilitation services were found effective in attainment of self-formulated rehabilitation goals and societal participation as compared with a control group (Swildens et al., 2011). Finally, psychosocial interventions have resulted in an increase in mean goal-attainment scores (Tabak et al., 2015). Yet, none of these studies tested the association between pursuing personal goals and the experience of personal recovery.

Only one study tested the associations between case management goal-attainment and progress in psychological recovery over a three month period (Clarke et al., 2009b). Goal attainment was found to mediate the relationship between symptom distress and self-rated recovery. More research with larger samples and more diversified rehabilitation settings that focus on pursuing short and long term goals is needed. Furthermore, such a line of inquiry can help establish if the support by mental health practitioners in attaining these goals plays a role in the promotion of personal recovery. The current study seeks to address these gaps in the literature. Herein, we sought to examine the relationship between personal recovery and goal-setting/striving, and, in a first effort of its kind, to determine whether the level of a consumer's recovery is influenced by the level of perceived assistance of mental health service providers towards achieving personal goals.

1.1. The context of the current study

In numerous countries, policy makers and stakeholders have been exerting systemic efforts to develop a recovery-oriented, person-centered approach to mental health services. In particular, in Israel, the year 2000 witnessed a crucial step towards the advancement of this agenda: legislation of the Rehabilitation in the Community of Persons with Mental Disabilities Law (RMD, 2001; Aviram, 2010; Hornik-Lurie et al., 2012; Lerner et al., 2012: Shershevsky, 2006). In addition to providing mental health consumers with an array of support systems, services and resources the RMD has facilitated the development of a diverse array of housing services, including: 1. Independent living arrangements with one to five participants in shared flats in the community (supported housing) with staff visits on a regular basis 1–5 h a week. 2. Group-homes (also named 'hostels') with about 20–30 tenants, involving 24-h wrap-around services and support. Consumers are assigned to supported-housing or to group-homes by a committee, based on functioning levels of these persons as defined by the RMD. Group-home residents will often need and receive more intensive services from mental health staff than do residents of supported-housing services. Mental health staff include both professionals—e.g., social workers and occupational therapists who support residents in their goal strivings and rehabilitation plans and non-professionals (also termed ‘rehabilitation instructors’) who are non-trained individuals who provide more tangible supportsand attend to needs and activities of daily living (ADL). A major challenge in these services continues to be helping individuals pursue and meet personal goals (Lerner et al., 2012; Moran et al., 2015).

This study was designed to examine several aspects of goal-associated characteristics and outcomes among a large sample of residents living either in supported-housing facilities or in group-homes, across several districts in Israel. First, we sought to find out how many of the residents of these housing facilities have personal goals and rehabilitation plans, and to examine the type of goals/plans they have. Second, we wanted to determine whether those reporting having personal goals and plans for the near future report better personal recovery and more favorable psychosocial outcomes (specifically, with respect to employment status), compared with those who do not report having such goals. Third, to investigate nearly for the first time in a large scale study whether those residents who reported that the rehabilitation team (professional and non-professional staff members) assist them in pursuing their goals would experience enhanced recovery. Lastly, we aimed to explore whether having more intensive contact with staff in group-homes as compared with the lower intensity of contact that exist in supported housing tenants, would have impact on goal setting and pursuit of goals among mental health consumers residing in these two housing settings.

A secondary focus of this study involved the examination of several factors' impact on the magnitude of perceived recovery, including the specific types of personal goals, the type of rehabilitation staff (professional vs. paraprofessional) and/or the type of residential service.

2. Method

2.1. Design and procedure

The present study was carried out as part of a larger quality assurance project that took place during the years 2013–2014: a study on satisfaction with rehabilitation services and quality of life among persons with mental illness who are entitled to rehabilitation and receive Psychiatric Rehabilitation Basket services under the provision of the RMD. Receiving rehabilitation services is contingent upon having been diagnosed with mental illness which has caused at least a 40% psychiatric disability determined by a committee and recognized by the National Insurance regulations. The project was initiated, approved and supported by the Rehabilitation Unit at the Branch of Mental Health Services, Israel Ministry of Health (MOH). It was accompanied by a steering committee appointed by the MOH which also observed the ethical roles set by the MOH. It was conducted by the Yozma – Derech Halev Organization.

The data used in the current study were drawn from assessments conducted among persons receiving housing services and living in supported-housing facilities or group-homes in three districts in Israel (Central, South and Jerusalem Districts). The study's purpose and ethical considerations (such as that personal data concerning residents of a given facility will not be disclosed to the MOH) was explained to staff members of the participating facilities. They were asked to explain the study to residents and to invite them to participate. A full explanation of the procedure, including the anonymity of the study, was provided to all participants and their informed consent was obtained before commencement. Structured interviews were conducted in person, by mental health consumers employed by the Yozma – Derech Halev Organization and who had received 8 months of training as interviewers. Each interview lasted 20–40 min. The interview protocol contained socio-demographic measures, self-rated mental health, employment status, job satisfaction, types of social interactions (such as number of friends, participation in support groups etc.), satisfaction with living conditions, satisfaction with the professional staff, satisfaction with social relationships, and level of personal recovery.

Table 1
Characteristics of residents with and without defined personal goals in different housing settings.

Characteristic	Supported housing services			Group homes		
	Having personal goals	Not having personal goals[a]	Total	Having personal goals	Not having personal goals[a]	Total[b]
% (N)	79.9 (976)	20.1 (246)**	1222	72.4 (651)[c] #	27.6 (248)**	899
Age (mean ± SD)	43.9 ± 11.7	51.0 ± 11**	45.4 ± 11.9	42.5 ± 12.8	51.0 ± 11.5**	44.9 ± 13.1
% males	54.2	52.4	53.7	60.5	68.6*	63.3^^
Education (mean # years ± SD)	12.2 ± 2.4	11.5 ± 2.8**	12.0 ± 2.5	11.6 ± 2.5	10.9 ± 3.1**	11.4 ± 2.7^^
Marital status (%):						
Married	8.8	15.9*	10.2	2.3	4.9	3.0 ^^
Single	63.7	51.2	61.3	73.7	67.2	72.0
Divorced /separated/ widower	27.5	32.9	28.5	24.0	27.9	25.0
Length of stay at facility (months ± SD)	55.6 ± 56.2	66.9 ± 62.3**	57.6 ± 5 7.4	45.3 ± 41.1	59.3 ± 46.0**	48.8 ± 42.9^^
% employed	72.6	69.4**	71.8	79.0	72.8*	77.3^^
% in supported employment or employed in the open market or learning	38.9	20.4**	35.0	19.2	10.2*	16.5^^
Self-rated mental health (%):						
Very poor, poor	7.1	11.0*	7.9	7.4	15.4**	9.8
Fair	38.8	42.6	39.4	38.1	37.3	38.0
Good, excellent	54.1	46.4	52.7	54.5	47.3	52.2
Personal recovery (mean ± SD)	3.7 ± 0.7	3.3 ± 0.8**	3.5 ± 0.7	3.6 ± 0.7	3.3 ± 0.83**	3.5 ± 0.8

[a] Comparison between persons within the same housing setting: * $p < 0.05$** $p < 0.001$
[b] Comparison of the total values for persons living in a group-home with those living in supported-housing facilities: ^ $p < 0.05$ ^^ $p < 0.001$
[c] Comparison of the values for persons having personal goals living in a group-home with their counterparts living in supported-housing facilities: # $p < 0.001$

2.2. Participants

Participants were 2121 persons with a primary diagnosis of mental illness, e.g., schizophrenia or major affective disorder. They belonged to two main groups: (1) 1222 participants residing in 46 supported-housing facilities (with average response rate of 79%); (2) 899 participants residing in 61 group-homes (with average response rate of 77%). The characteristics of both groups are presented in the 'Total' columns of Table 1.

2.3. Measures

2.3.1. Having personal goals or plans

An earlier (unpublished) study of ours has provided us with the opportunity to examine the stability over time of the kind of future goals/plans formulated by residents. This was a 1-year follow-up study among 102 supported-housing residents (51% males, mean age 44.5 years, 12 years of education and length of stay in the facility 4.5 years). Participants indicated if they have personal goals/plans for the coming year, and reported again their goals/plans, following that year. Responses were classified by two raters into 14 categories. The inter-rater reliability (Kappa coefficient) was 0.92. The results revealed that nearly the same participants have formulated goals/plans for the coming year, on both occasions (74.5% and 76.5%, respectively). Among these participants the agreement between the kinds of goals/plans reported on both occasions was remarkably high (89%).

In the present study we determined again whether a participant had personal goals/plans on the basis of his or her response to the question: "Do you have personal goals/ plans for the coming year? Yes/No." If the answer was positive, the participant was asked to elaborate on those plans (an open-ended response). The responses were classified by the interviewers after the fact into 14 categories. Two of the authors clustered the categories list into the following 7 subtypes: (1) preserving current achievements (e.g., continuing with one's present job); 2. improvement of current achievements (e.g., making more money, upgrading current job, improving ADL skills); (3) advancing forward (e.g., upgrading one's living arrangement, such as living alone or with partners; moving to supported employment or working in the open market, opening own business); (4) self-improvement/empowerment (losing weight, quitting smoking, feeling better, improving self-confidence, becoming more optimistic); (5) learning and professional training (e.g., further education, taking professional courses, professional training); (6) improving social life (e.g., getting married, finding a boyfriend/girlfriend, participating in social leisure activities [such as joining social clubs]); (7) assorted goals (e.g., taking driving lessons, traveling abroad). The inter-rater reliability among these two authors (Kappa coefficient) was 0.89. Subsequently, each participant's goals/plans were assigned by the computer new code/s (one or more of the 7 subtypes).

2.3.2. Perceived assistance in pursuing personal goals

Participants were asked to rate the extent to which staff is supportive and assists them in pursuing personal goals. They provided separate responses for two types of staff members: (1) professional staff (e.g., social workers, psychologists, occupational therapists); (2) non-professional staff, referred to as rehabilitation instructors (i.e., persons without formal training in mental health and rehabilitation professions). The response scale ranged from 1 ('not at all') to 5 ('to a very large extent').

2.3.3. Personal recovery

In the mid-1990s, the Recovery Assessment Scale (RAS) was developed to measure personal recovery. Since then it has become the most commonly used measure of recovery in the published literature (Salzer and Brusilovskiy, 2014). In the present study, personal recovery was gauged on the basis of the abbreviated 12-item 5-point Likert-type response scale of the Hebrew version of the RAS. The scale's Hebrew version was recently developed (Roe et al., 2012) and validated, supporting four out of the five factors originally identified (Corrigan et al., 2004). In the pooled sample the Cronbach's alpha coefficient of this scale was 0.89.

2.3.4. Demographic/control variables

These included age, education level (number of years of schooling), gender and length of stay in the facility, employment status: unemployment, sheltered factory, occupational club, supported employment (IPS), working in the open market, studying.

2.3.4.1. Self-rated mental health (SRMH). SRMH was measured according to a single item: "How would you rate your overall mental health? 1- very poor, 2- poor, 3- fair, 4- good, 5- excellent." The validity of SRMH was demonstrated in a number of studies (reviewed in

Ahmad et al. (2014)). SRMH has been found to be strongly associated with mental health symptoms and with several measures of psychiatric morbidity (Fleishman and Zuvekas, 2007; Jang et al., 2012; Kim et al., 2011). SRMH is considered a useful tool for monitoring and evaluating the state of individuals' mental health and well-being (Fleishman and Zuvekas, 2007). It may also be predictive of future psychiatric morbidity (Ahmad et al., 2014). Thus, SMRH was likely to be a potential cofounding variable in the present study. The control variables including SMRH were adjusted for in subsequent analyses as these variables have been found to correlate with SRMH (Yoon and Jang, 2014) and personal recovery as assessed by the RAS (Corrigan et al., 2004).

2.4. Data analyses

The two study groups—supported-housing residents and group-home residents—were further subdivided into two groups: those who reported having personal goals/plans (any of the subtypes outlined above) and those who reported not having any goals/plans for the forthcoming year. Differences between the mean scores on continuous variables, across these four independent groups, were tested by Analysis of Variance (ANOVA), followed by post-hoc comparisons. Differences between the groups on categorical variables (frequency data) were analyzed by multiple contingency (χ^2) analysis. For those who declared having personal goals, we computed Pearson correlations to test the associations between the study variables (predictor, control and outcome (personal recovery)). In addition, for those same participants, we used regression analyses to test associations between the predictor variables (professional staff assistance and rehabilitation instructors' assistance) and personal recovery, while controlling for age, gender, educational level and SRMH. Data were analyzed using an SAS package.

3. Results

The characteristics of persons with and without defined personal goals by housing setting are presented in Table 1. Statistical analyses of the data yield several notable findings, as outlined below.

3.1. Characteristics of persons having personal goals and plans

By and large, the percentage of respondents who reported having defined personal goals or plans was significantly higher among supported-housing residents (79.9%) than among persons living in group-homes (72.4%, $p < 0.001$). Moreover, independent of the type of housing services, participants who reported having defined personal goals or plans showed more distinct characteristics compared with those who did not report having such goals/plans. Specifically, those who reported having goals/plans were younger, had more years of schooling, a shorter length of stay at the facility, and reported better SRMH. No consistent trend was observed with regard to gender.

Importantly, compared with their counterparts, participants who reported having personal goals showed better rehabilitation functioning reflected by: a higher percentages of being employed, particularly in supported employment or in the open market, or higher percentages of engagement in academic or professional studies. Furthermore, these participants reported higher levels of personal recovery.

We were further interested to examine if the *type* of goals/plans would differ between participants in our two study groups. The distribution of these variables is presented in Table 2.

The respective percentages highly differed (χ^2=13.00, $p < 0.0001$). While about a third of participants in both groups expressed an interest in advancing forward in life (see Measures section for the type of goals/plans included in this category), their other goals/plans substantially differed. Higher percentages of group-home residents expressed a wish to preserve or improve their current achievements. In contrast, supported-housing residents had set more goals of self-improvement/empowerment, learning, getting professional training and improving social life.

Table 2
Distribution of goals/plans categories among residents of supported housing and group-homes.

Category	Supported housing services (N=976)		Group homes (n=651)	
	n	%	N	%
Preserving current achievements	0	0.0	38	5.8
Improvement of current achievements	29	3.5	82	12.6
Advancing forward	272	27.9	201	30.9
Self-improvement/empowerment	125	12.8	59	9.1
Learning and professional training	179	18.3	91	14.0
Improving social life	246	25.1	118	18.1
Assorted goals	125	12.8	62	9.5

In an exploratory analysis we tested whether any of the seven subtypes of goals listed above are particularly likely to be associated with better personal recovery. No significant differences emerged. Furthermore, ANCOVA results showed that this finding persisted even after controlling for age, gender, length of stay at the facility, educational level, employment status and SRMH (p=0.54 and 0.38, respectfully for supported housing and group-homes residents). This result suggests that the important factor in the relationship between goal-setting and recovery is the ability to formulate personal goals/plans, irrespective of the specific type of goal. In light of this result, in subsequent analyses we distinguished participants on the basis of whether or not they reported having any personal goals/plans, without drawing further distinctions between the types of goals they had reported.

As indicated above, persons formulating personal goals and plans reported better recovery compared with those who did not do so. Moreover, the former group also showed more favorable rehabilitation outcomes. We were further interested to explore whether formulating personal goals /plans (yes/no) is related to personal recovery independent of potential confounding variables. We examined this through an additional ANCOVA analysis. The results indicated that the findings presented in Table 1 remained highly significant for both groups ($p < 0.0001$) even after adjusting for potential confounding variables, such as age, gender, length of stay in the facility, educational level and SRMH.

3.2. Characteristics of persons living in different housing services

An additional finding that emerged (the data in the 'Total' columns in Table 1) is that the characteristics of those living in supported-housing differ from group-home residents. Specifically, the former group had a lower proportion of males; higher education; higher marriage rates and a lengthier stay at the service. Interestingly, supported-housing residents had lower percentage of employment, however among those employed - a higher percentage were engaged in either supported employment, the open market or in academic or professional training, as compared with employed individuals in group-home services (see 'Total' columns in Table 1). This finding validates the a priori assignment of persons into the different housing settings on basis of functioning. Yet, no difference was found between the two groups with regard to SRMH or personal recovery.

3.3. The significance of assistance with pursuing personal goals

Among participants reporting having personal goals and plans, 80.4% of those using supported-housing services reported that the

Table 3
Pearson Correlations among the study variables.[a]

Variable	1	2	3	4	5	6	7
1. Age	–	0.10	0.09	−0.03	−0.07	−0.10	−0.03
2. Gender (Males=1)	0.05	–	0.08	−0.01	−0.07	−0.03	−0.03
3. Education (years)	0.05	0.04	–	0.02	−0.01	−0.07	−0.03
4. SRMH[b]	−0.04	−0.10	−0.03	–	0.49	0.16	0.15
5. Personal recovery	−0.03	−0.11	−0.03	0.57	–	0.28	0.25
6. Professional staff assistance	−0.030	0.05	−0.00	0.10	0.25	–	0.63
7. Rehabilitation instructors' assistance	−0.01	0.05	−0.00	0.11	0.22	0.59	–

SRMH=Self- rated mental health.
Note: All correlation coefficients > 0.08 are significant at least at the $p < 0.05$ level.
[a] Correlations for the sample of supported-housing tenants are presented above the diagonal (n=976), and those for the group-home residents are presented below the diagonal (n=651).

professional staff provided them with assistance in pursuing personal goals to a large or very large extent. The corresponding figure for rehabilitation instructors was 79.4%. The figures for group-homes residents were generally lower: 76.0% and 72.7%, respectively. In subsequent analyses, the extent of perceived assistance with pursuing personal goals/plans was operationalized as a continuous variable.

The correlations between the study variables for persons in different housing settings are given in Table 3. Among supported-housing residents, we observed a positive and significant correlation between personal recovery and perceived assistance with pursuing personal goals/plans, for both professional staff (r=0.28) and rehabilitation instructors (r=0.25). Similar positive correlations were observed for persons living in group-homes (r=0.25 and r=0.22, respectively). Personal recovery was highly correlated with SRMH for persons living in supported-housing facilities (r=0.49) and for persons living in group-homes (r=0.57). In both groups, SRMH was marginally related (r ranged from 0.10 to 0.16) to perceived assistance with pursuing personal goals/plans.

The above correlations confirm our expectation, expressed in the third aim of this study, of a positive association between perceived assistance with pursuing personal goals/plans and personal recovery. Next, we carried out a regression analysis in order to examine whether this association persists after controlling for possible confounding variables (see Table 4).

The resulting regression models were significant both for supported-housing residents (R^2=0.37, $p < 0.0001$) and for group-home residents (R^2=0.28, $p < 0.0001$). Thus, while both R^2 values are high, we see that the study target variables explain higher proportion of the variance in personal recovery for supported-housing residents. Professional staff assistance was positively and significantly associated with personal recovery both for supported-housing residents (β=0.16, $p < 0.01$) and for group-home residents (β=0.10, $p < 0.05$). Both associations remained significant even after controlling for potential confounding variables, including SRMH. However, no significant associations were observed for rehabilitation instructors' assistance.

4. Discussion

Transition of the field of mental health to a person-centered, recovery-oriented focus elicited the need for rehabilitation services to support consumers' capacity to set and pursue personal goals (Clarke et al., 2006; Davidson et al., 2009; Slade et al., 2014). This study examined whether 2121 mental health consumers who reside in diverse housing services report having personal goals and rehabilitation plans, and whether having such goals or plans is associated with personal recovery. Moreover, this study investigated whether the extent to which consumers perceive staff as providing assistance in pursuit of their personal goals is related to their personal recovery. The main

Table 4
Regression analysis of personal recovery on perceived assistance and other control variables, among supported-housing and group-home residents.

	Supported housing (n=976)			Group homes (n=651)		
	B	SEB	β	B	SEB	β
Age	0.00	0.00	0.02	−0.00	0.00	−0.04
Sex[a]	−0.10*	0.04	−0.07	−0.10	0.05	−0.07
Education	−0.00	0.01	−0.02	−0.00	0.01	−0.00
SRMH[b]	0.42**	0.02	0.53	0.36**	0.03	0.47
Professional staff assistance	0.13**	0.03	0.16	0.06*	0.03	0.10
Rehabilitation instructors' assistance	0.06	0.03	0.07	0.05	0.03	0.08
R^2	0.37**			0.28**		

* $p < 0.05$.
** $p < 0.01$.
[a] Males=1, Females=2;
[b] Self-rated mental health.

findings show that approximately 75% of participants, across housing services, reported having personal goals and plans, and had better personal recovery and more favorable rehabilitation outcomes as compared with residents who did not have goals and/or plans. Overall, around 78% of residents reporting having goals or plans indicated that professional staff assisted them in pursuing their goals. As anticipated, the extent to which staff were perceived by residents as providing such assistance was significantly and positively associated with personal recovery, even after controlling for potential confounding variables, including self-rated mental health (SRMH). These findings are further elaborated and discussed below.

4.1. The relationship between formulation of personal goals and recovery

The study findings empirically support the existence of a positive relationship between formulation of personal goals and recovery processes (Andersen et al., 2003; Clarke et al., 2009b; Davidson et al., 2009; Slade et al., 2014). More specifically, irrespective of the type of housing service, residents who reported formulating personal goals and rehabilitation plans experienced a higher level of personal recovery and psychosocial outcomes. Further analysis reinforced the predictive value of goals/plans formulation: having established goals/plans was found to be independently associated with personal recovery even after adjusting for potential confounding variables, such as age, gender, length of stay in housing facility, educational level and SRMH.

In our preliminary exploratory analysis we classified goals/plans into 7 subtypes (see Method section) and we uncovered that the positive association between the formulation of personal goals/plans and measurements of recovery is not dependent on the nature of the goals/plans. This finding validates previous assertions that the mere act of striving towards a goal is indicative of favorable outcomes (Cohen et al., 1990; Lecomte et al., 2005).

Nevertheless, an interesting finding emerged when we examined the difference in the types of goals reported by participants in our two study groups. Both groups expressed a wish to move forward in life, yet residents of group-homes focused significantly more on preserving or improving current achievements (e.g. improving ADL skills or continuing with one present job) while supported-housing tenants set goals of self-improvement/empowerment, learning, further professional training and improving social life. It should be noted that the two groups a priori differ as determined by the RMD: persons who are more independent in functioning are allocated to supported-housing. It appears that persons in supported housing set goals which are more typical to individuals further along in their stages of recovery, such as rebuilding and growth (see elaboration by Andersen et al. (2003) and

Clarke et al. (2012)). Such persons may pursue goals aimed to reflect higher order needs, for example, connection with others, occupational pursuits and striving toward self-actualization (Clarke et al., 2012). On the other hand persons residing in group-homes may be in lower recovery stages, such as moratorium or awareness. Accordingly, they may focus more on goals associated with physical health and basic day-to-day functioning (Clarke et al., 2012).

Notably, the RMD legally requires practitioners to develop personalized rehabilitation goals and plans for their clients, and common case-management procedure involves periodical reassessment of these goals/plans. Thus, in accordance with standard practice, all participants should have had collaborated with practitioners in formulating such goals, yet the study shows that a substantial percentage of residents (20–28%) reported that they did not have personal goals/plans. This finding is in line with another study showing that some individuals do not fulfill their rehabilitation plans even though entitled for services to fulfil their goals by the RMD law (Moran et al., 2015). The importance of formulating goals of mental health by using the specific wordings used by consumers has been underscored (McGuire et al., 2016). The current study findings may indicate that residents did not perceive the formulated goals/plans as their personal goals.

This observation calls attention to the need to employ better and well-studied interventions that promote goal setting. For example, in Australia, Clarke et al. (2009a) have led efforts to advance the quality and frequency of goal-setting for mental health consumers in services; specifically, they promote the use of a specific technological tool that assists in structuring goals (see also Clarke et al. (2006)). In the U.S., Readiness for rehabilitation is an intervention used for a joint consumer-practitioner assessment of readiness to set goals focusing on personal needs, motivation and environmental relevant factors (Cohen et al., 1990; Farkas et al., 2000; Farkas and Anthony, 2010) so far studied and found effective mainly in the area of employment (Roberts and Pratt, 2007, 2010). The illness management and recovery intervention also includes a sub-division on personal goals (Gingerich and Mueser, 2005). More recently, the notion of personal budgets (Spandler and Vick, 2006) and strength–based case management (Gelkopf et al., 2016; Rapp et al., 2015) veer efforts to empower consumers' goal formulation and attainment in a person centered approach. Yet, such goal-oriented interventions and efforts have yet to receive sufficient research attention. Despite their diversity, common to these approaches/techniques is their emphases on a positive and empowering relationship with a provider in individuals' recovery processes which we address next.

4.2. The role of perceived assistance in pursuing personal goals

Nearly all intervention studies designed to help consumers in goals setting and attainment have examined the effectiveness of these interventions in terms of the degree of goal attainment (Swildens et al., 2011; Tabak et al.,2015), improvement in illness management (McGuire et al., 2014) or psychosocial functioning (Svedberg et al., 2014; Swildens et al., 2011; Tabak et al., 2015). The present study pioneered in investigating whether the impact of practitioners' intervention of encouraging consumers to set and pursue personal short term and long term goals, would generalize to an experience of personal recovery. These findings add to the knowledge gained from the single empirical study that tested the associations between promotion of short term goal attainment and progress in psychological recovery (Clarke et al., 2009b). The current study results showed that residents who perceived professional staff members as assisting them in pursuing their goals experienced significantly higher recovery levels. And that this significant relationship remained, even after controlling for several potent confounding variables including SRMH. This finding is in line with our clinical experience which suggests that professionals often tend to be active and explicit about promoting residents' goals and rehabilitation processes, especially when residents show low motivation, low self-efficacy and lack of agency to pursue goals. Active consumer-provider engagement and collaboration in treatment relationships are important in order to advance outcomes (Tryon and Winograd, 2011) and promote recovery (Moran et al., 2014). Thus, we believe that assisting mental health consumers with goal-formulation and goal attainment may have enhanced consumers' sense of engagement, which mediated the recovery outcome. Future studies may further research goals within the context of consumer–provider relationships.

4.3. Differences in outcomes across rehabilitation staff types and housing settings

Interestingly, participants in supported housing showed significantly higher rates of goals/plans, as compared with group-home residents. Two possible explanations of this outcome come to mind. On one hand, perhaps individuals in supported-housing, which emphasizes independent living, are more focused on personal goals, whereas individuals in group-homes are more focused on more basic needs (such as observing home roles, improvement of ADL skills or outings) and may have less resources to invest in formulating future goals/plans. On the other hand, it may be that the nature of the service itself carries some influence in this regard. Enabling consumers to develop self-management skills and step out of inactivity or immobilization are advised in recovery approaches (Davidson et al., 2006; Slade, 2009) and these approaches are usually less salient in segregated/sheltered services. Group-homes are a relatively more traditional residential setting that pertain more to a maintenance model rather than a recovery-oriented change model. Therefore participants in group-homes may be less prone to setting personal goals. Yet, further studies will need to be conducted to address these questions.

In addition, we observed that providing assistance had differential impact in recovery outcomes according to the type of provider: assistance by professional staff (social workers and occupational therapists) in pursuing goals was significantly associated with recovery, whereas assistance by non-professional staff (rehabilitation instructors) was not. This finding is perhaps not surprising given that professional staff often discuss rehabilitation plans and define goals with consumers, following up on their progress toward achievement of these goals; moreover, they may act as liaisons to additional community resources and programs. In contrast, rehabilitation instructors, are more involved in immediate tasks of life, such as ADL, social activities and leisure activities. Thus, it may be claimed that professionals hold the 'big life picture' of consumers' goals, whereas non-professionals attend more to immediate and proximate daily processes. Yet, rehabilitation instructors (especially in group-homes) are often more closely engaged in contact with residents, and therefore have the potential to frequently address residents' rehabilitation plans and goals. For example, if the goal is to live independently with a boyfriend, then taking care of finances and housekeeping can serve as a practice step toward that goal. Such 'tasks' may then become infused with personal meaning, rather than serving as ends in and of themselves, or mere obligation to a service (Farkas and Anthony, 2010; Cohen et al., 1990). As in other countries, a large proportion of the psychiatric rehabilitation workforce has limited training and yet intensive contact with service users. Perhaps the lower percentage of formulated personal goals/plans among group-homes residents is related to this phenomenon.

4.4. Limitations and strengths of the current Study

Typical of other studies in this area, a limitation of this study involves its cross-sectional design, being unable to discern cause and effect. Until a controlled study is done, it is difficult to conclude with confidence that goal striving and goal attainment lead to greater personal recovery. In addition, the question of the stability of capability

of setting and pursuing goals overtime, remains unanswered. This issue was partly resolved by the results of our earlier (unpublished) longitudinal study which indicated that the capability of formulating goals appears to be stable across the time span studied: the same individuals who reported having personal goals/plans in Time 1, continued to set goals/plans in Time 2. Moreover, the goals/plans category seems also highly stable across 1 year of follow-up. This later finding was rather encouraging given the possibility that goals/plans may change with time particularly for short term goals as acquiring a driving license or changing the place of residence for a better one. Of course, we do not expect this stability to last. Goals may change with emergence of new needs and desires or may shift with advancing stages of recovery (Clarke et al., 2012). Yet, only longitudinal studies may uncover to what extent the capability to set personal goals and pursue them persists over time and how this is related to the outcomes studied. An additional limitation is that we did not assess symptoms objectively. Different types of symptoms (i.e., negative and positive symptoms) might impact whether one has a goal and whether one might feel comfortable interacting with their provider about their goals. Unfortunately, we were not given the approval (by the MOH) to collect the relevant data, and this issue remains a worthy topic of investigation in future studies.

A key strength of this study lies in the large sample of participants, distributed among different residential services and across different geographical areas in the country, enhancing its generalizability and ecological soundness. Our observations provide insights regarding the associations among several variables given in different housing services, and what can be improved. For example, the fact that goal-related assistance from professionals is positively associated with recovery, whereas such assistance from non-professionals is not, despite the fact that the latter interact more frequently and intensively with residents. Yet, future research may explore the actual degree to which consumers achieve their goals and fulfill their rehabilitation plans, and the extent to which the fulfillment is related to practitioners' support in pursuing personal goals over time.

4.5. Conclusions

The present study empirically reaffirms the relationship between having goals and personal recovery. It is also first to show that staff may further promote recovery in consumers reporting having personal goals/plans, by assisting them in pursuing such goals/plans as reported by residents. Assistance provided by professional staff—but not that provided by rehabilitation instructors—was predictive of personal recovery, even after controlling for potential confounding variables, such as SRMH. In addition, in group homes, residents tended to report receiving less assistance in pursuing their personal goals/plans. These suggest the need to- and the potential benefits of further developing goal-setting and goal-attainment interventions in the practice of psychiatric rehabilitation.

In this study persons residing in group-homes tended to report receiving less assistance in pursuing their personal goals/plans. Thus, rehabilitation staff members may need to devote special attention and effort, in order to facilitate goal-setting and to support goal attainment in group-homes as a means of promoting recovery. Furthermore, it seems plausible that rehabilitation instructors (paraprofessionals), who interact more closely and more frequently with residents than professionals do, may also have the capacity to enhance their roles in promoting residents' recovery, by further emphasizing goal formulation and pursuit.

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