



Subjective well-being, hope, and needs of individuals with serious mental illness

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ABSTRACT

Hope, as a basic resource in human life, may affect individuals' perceptions of subjective well-being (SWB). Further, understanding individuals' needs is essential to improving their SWB. It is unclear how the impact of hope on SWB may be mediated by needs. The current study aimed to examine a mediation model for the relation between hope and SWB among individuals with serious mental illness (SMI). Face-to-face structured interviews were conducted with 172 individuals with SMI. Instruments included the Personal Well-being Index, the Hope Scale, and the Camberwell Assessment of Needs. Hope and needs were predictive of 40% of the variability in SWB, with hope being a stronger predictor. Having no needs was positively predictive of SWB, while total number of needs was negatively predictive of SWB. Path analyses revealed a strong direct effect of hope on SWB and a weaker, though still strong, indirect effect mediated through needs. The results underscore the importance of hope in improving SWB and, consequently, enhancing the recovery process of individuals with SMI. Therefore, mental health services should focus on hope-building.

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1. Introduction

During the last three decades, we have witnessed an increased interest in the field of quality of life (QoL) in medicine in general and in relation to mental disorders in particular (Bobes and Gonzalez, 1997; World Health Organization, 2005). While in previous years the primary goal of mental health (MH) treatment was to control disease symptoms, at present the concept of outcome in psychiatry has been widened to include strategies for improving QoL (Ponizovsky et al., 2003; Bobes et al., 2005; Kao et al., 2011).

Researchers have asserted that QoL is a complex and intricate concept (Thorup et al., 2010). In the mental health field, most researchers have employed the definition of 'health-related quality of life' proposed by the World Health Organization Quality of Life (WHOQOL) Group: "an individual's perception of one's position in life in relation to goals, expectations, standards, and concerns in context of the culture and values systems in which one lives" (World Health Organization, 1998). Additional definitions of QoL have differentiated between objective and subjective QoL measures. However, among QoL theorist and researchers, greater importance is currently being placed on subjective measures, stressing that the ultimate test of a life worth living is how people feel about their QoL (Schalock, 1997).

The focus of the current study is subjective QoL, or subjective well-being (SWB), which is defined as a normally positive state of mind that involves the whole life experience (Cummins et al., 2010). The terms QoL and SWB have often been used interchangeably (Keyes et

al., 2002; Ring et al., 2007). However, these are empirically distinct concepts, as SWB assesses QoL mainly through measures of happiness and/or satisfaction with life (Diener, 2000) while QoL may also include objective measures.

SWB is a relatively stable mood-state for an individual. Normal levels of well-being are usually maintained, even in adverse conditions, through a psychological/neurological system of SWB homeostasis (Cummins, 2000; Cummins et al., 2010). According to Cummins et al. (2010), the average set-point of SWB homeostasis among Western populations is about 75 on a 100-point scale. However, SWB is not absolute. If the level of challenge to SWB becomes too great, homeostasis fails and SWB drops below the set-point range (Cummins et al., 2010). When this occurs, normal feelings of positive well-being disappear and are replaced by depression (Cummins et al., 2007).

Most studies in the mental health field have utilized a broad QoL terminology or the term 'subjective QoL,' rather than the more specific term of SWB. These studies have shown that psychiatric patients, especially those with schizophrenia, have low levels of subjective QoL in comparison to the general population (Bengtsson-Tops and Hansson, 1999; Ponizovsky et al., 2003). The results of a fairly recent meta-analysis on QoL indicate that psychiatric symptoms have only a small relationship with QoL in schizophrenia (Eack and Newhill, 2007). The psychosocial (secondary) effects of mental illness (e.g., social support, self-esteem, self-efficacy) were found to have a greater impact on QoL (Ritsner, 2003; Eack and Newhill, 2007).

Studies have examined several psychosocial variables which may predict QoL in MH. For example, Thorup et al. (2010) found significant correlations between self-esteem, affective balance, and psychopathology, indicating that QoL was more closely related to the "inner world" than to material or outside issues, such as jobs and living

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situations. Other empirical studies have shown that such traits as mastery, autonomy, locus of control, sense of coherence in life, self-efficacy, and self-esteem are important predictors of SWB (Zissi et al., 1998; Ritsner et al., 2000; Hansson and Björkman, 2007). An additional psychosocial variable that has an important influence on QoL is hope.

1.1. Hope and subjective well-being

Hope is considered a basic personality trait (Snyder et al., 1991) and resource in human life (Kylma, 2005), as well as a healing force promoting well-being (Holdcraft and Williamson, 1991). Hope has been found to contribute to therapeutic efficacy and is consistently identified as an essential element for recovery from MI (Corrigan et al., 2004; Roe et al., 2004; Schrank and Slade, 2007; Bonney and Stickley, 2008). Although the level of hope is highly variable among different individuals, it is considered to be a relatively enduring characteristic (Landein and Seeman, 2000).

Most definitions of hope include the idea of a positive future orientation (Landein and Seeman, 2000). The current study is based on Snyder's definition of hope as a cognitive set that is based on a reciprocally derived sense of successful agency (goal-directed determination) and pathways (planning of ways to meet goals) (Snyder et al., 1991). The construct of hope reflects an individual's perceptions about his or her ability to conceptualize goals, develop strategies to reach those goals, and sustain the motivation to use the strategies (Snyder et al., 2003; Resnick et al., 2005). The central element of hope is the positive expectancy of reaching goals that are deemed achievable to the individual (Snyder et al., 2006).

Studies in different disability fields have utilized the hope construct as a predictor variable for life satisfaction (Chen and Crewe, 2009). The use of hope as a predictor variable is based on the conception of hope as an inner strength (Chang and DeSimone, 2001) and as a positive psychological variable that can predict positive outcomes, including greater life satisfaction (Kortte et al., 2010).

The present study uses hope as a predictor of SWB. Several studies have examined the relationship between hope and QoL among individuals with SMI. A review study of the literature through 2008 identified 11 studies that examined hope as a predictor variable in mental health settings (Schrank et al., 2008). Three of these studies examined some aspects of well-being as the outcome variable. One study in a community mental health center found that higher hope was associated with greater SWB (Irving et al., 2004). In a study of 476 combat veterans in a PTSD unit who were examined pre- and post-treatment, it was found that more veterans with low levels of hope perceived their QoL to be better than did veterans with high levels of hope. One explanation for these unexpected results was the overall low level of hope expressed by all participants in the group (Johnson, 2001). In another study with 124 clients from university counseling centers, it was found that clients who reported higher levels of hope also reported higher SWB and lower symptom distress (Magyar-Moe, 2004).

Since the above review, three additional studies are worth noting. A recent study conducted in Taiwan among 113 inpatients with schizophrenia found that depressive symptoms, parkinsonism side effects, hopelessness, and age at illness onset were the four strongest predictors of subjective QoL (Kao et al., 2011). Another study, conducted in Hong Kong (Ho et al., 2010), examined the recovery status of 201 outpatients with schizophrenia, using hope as one of ten recovery components, and found it to be a determinant of QoL. Finally, in a study conducted in Israel among 60 individuals with schizophrenia, hope was found to make a positive contribution to QoL, suggesting that increasing the hope of persons with schizophrenia may directly and positively increase their QoL (Hasson-Ohayon et al., 2009).

Despite the importance of these studies, they have focused on different study questions than the current study. For example, some

studies have focused on the construct of hopelessness rather than hope, which, although important, measures a degree of pessimism, rather than optimism (Kao et al., 2011). Methodologically, no study has utilized the Personal Wellbeing Index, which has recently been deemed as one of the most effective SWB instruments (Geyh et al., 2010). Finally, to the best of our knowledge, no study has examined how the impact of hope on QoL may be mediated by individual needs.

1.2. Needs and SWB

Needs have been defined as “the requirements of individuals to enable them to achieve, maintain or restore an acceptable level of social independence or QoL” (Department of Health Social Services Inspectorate., 1991). Understanding the needs of persons with SMI is highly important, as these individuals are often faced with disadvantages in various social and personal areas of life (Bengtsson-Tops and Hansson, 1999), which are not limited to the disease itself (de Weert-van Oene et al., 2009). Needs can be seen as a state variable, and as such, it has been acknowledged that MH care should be based on patients' needs in order to improve their QoL (Slade, 2002). Moreover, needs assessment can form the basis of resource allocation and service delivery (Lasalvia et al., 2000) by uncovering unmet areas of need where there is an insufficient supply of treatment interventions (Wiersma and van Busschbach, 2001).

Recent studies have examined the influence of met and unmet needs on the QoL of individuals with MI, using a broad QoL terminology rather than SWB. A number of these studies have established a relationship between unmet needs and lower QoL (Slade et al., 1999; Lasalvia et al., 2005). For example, in a longitudinal study among 251 individuals with MI in Italy, improvement in QoL was achieved by a reduction in self-rated needs (Lasalvia et al., 2005). Similar findings have been reported in studies conducted in other parts of the world, such as Great Britain (Slade et al., 2005) and Sweden (Bengtsson-Tops and Hansson, 1999). Several studies have also shown that met needs are important predictors of QoL. In one such study among 265 mental health service recipients in Italy, patient-rated unmet needs, and to a lesser extent patient-rated met needs, were negatively associated with subjective QoL (Slade et al., 2004).

Studies in the field of needs have stressed that the existence of a need is likely to be influenced by individual patient characteristics (McCrone et al., 2001), such as hope. Thus, the current study examined needs as a mediating factor between hope and SWB.

1.3. Study aims

The current study has two main aims. The first aim is to examine SWB among individuals with SMI in Israel. According to the literature review, it is hypothesized that the level of SWB among people with SMI in Israel will be lower than the average in other Western populations. The second aim is to examine a mediation model for the relation between hope (as a predictor variable) and SWB (as a dependent variable). Specifically, we propose that hope is positively related to SWB and that this positive relationship is mediated by needs. According to Baron and Kenny (1986), four hypotheses can be inferred from a mediation model. This model (see Fig. 1) generated the following hypotheses: 1) hope will be positively related to SWB; 2) needs will be positively related to SWB; 3) hope will be positively related to needs; and 4) hope will be a positive predictor of SWB through the mediating variable of needs.

2. Methods

2.1. Participants

A convenience sample of 172 individuals with serious mental illness (SMI) participated in the study. All participants were receiving at least one service under the Rehabilitation of

Mediation model for SWB

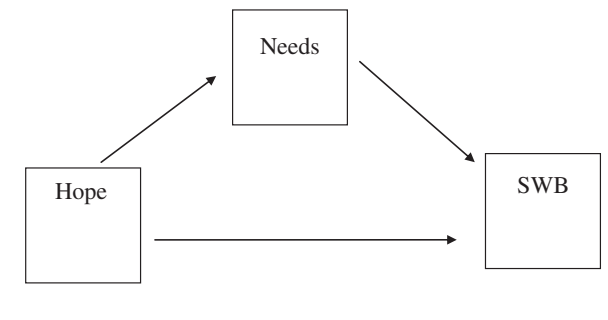


Fig. 1. Mediation model for SWB.

Psychiatrically Disabled Persons in the Community Act and were recruited from hostels and supported living environments throughout Israel. Participants' demographic and background data are presented in Table 1. As can be seen, most of the participants were male, unmarried, and diagnosed with schizophrenia. The majority lived in either hostels or supported housing environments and took part in an employment club or a sheltered workshop.

Comparison data from all individuals receiving psychiatric rehabilitation services in Israel in 2008 (Ministry of Health, 2008) are presented in the left column of Table 1. Although the data on all variables were not available, it is safe to state that the present sample is relatively representative of the study population in terms of

Table 1
Background information of participants.

Variables	N	%	Israeli 2008 data (%) ^a
Gender			
Female	75	44	45
Male	97	56	55
Psychiatric diagnosis			
Schizophrenia ^b	137	78	–
Affective disorders	17	10	–
Personality disorders	15	9	–
OCD	3	2	–
Marital status			
Single	114	66	–
Married	12	7	–
Divorced	37	22	–
Widowed	7	4	–
Type of residence			
Hostel	92	54	40
Supported housing	65	38	58 (includes all sheltered types together)
Supportive community	6	4	
Relatives	8	5	
Own rented apartment	1	1	
Daytime activity			
Employment club	54	31	28
Sheltered workshop	63	37	51
Supported employment ^c	30	17	21
Study	3	11	–
No daytime activity	19	2	–
Other (e.g., volunteer, hobbies)	3	2	–
Age			
<24	7	4	–
25–44	82	48	40
45–64	81	47	40
>65	2	1	–
			Mean ± S.D.
Age			43.4 ± 11.0
Years of education			11.8 ± 2.7
Years since first hospitalization			18.7 ± 10.9
Age of first emotional difficulties			22.4 ± 9.1
Age at first contact with MH services			24.4 ± 9.2
Age at first hospital admission			24.9 ± 8.7
Global assessment of functioning			65.2 ± 12.7

–Signifies unavailable information.

^a Based on Mental Health in Israel Statistical Annual, 2008.

^b Includes schizoaffective.

^c Includes open market.

gender, daytime activities, and age. A small difference was found in type of residence, which may be related to a difference in the definitions employed.

2.2. Instruments

2.2.1. Subjective well-being

SWB was measured by the Personal Wellbeing Index (PWI). This scale is intended to represent the “first-level deconstruction” of satisfaction with life, meaning that it contains the minimum number of items which, taken together, describe life as a whole. The questionnaire includes eight items on satisfaction with different domains, each of which represents a broad, semi-abstract area of life, including standard of living, health, social relationships, achievement, personal security, connection to community, future security, and spirituality/religion. In addition, there is one item related to overall satisfaction with life. Each item is rated on an 11-point scale, ranging from 0 (completely dissatisfied) to 10 (completely satisfied). Internal validity of the scale ranges from Cronbach alpha 0.70 to 0.85 (International Wellbeing Group, 2006). Internal consistency in the current study was very good ($\alpha = 0.83$).

2.2.2. Hope

Hope was measured by the Hope Scale, developed by Snyder et al. (1991) and translated into Hebrew by Dubrov (2002). Each item on this 12-item measure (eight hope items and four fillers) is scored on a 4-point scale, ranging from 1 = definitely false to 4 = definitely true. The Hope Scale demonstrated acceptable internal consistency, with a Cronbach alpha of 0.74–0.78 for the English version and 0.80 for the Hebrew version. Its internal consistency in the current study was very good ($\alpha = 0.82$).

2.2.3. Assessment of needs (CANSAS-P)

Needs assessment was based on the Hebrew version of the Camberwell Assessment of Need Short Appraisal Schedule (CANSAS-P; (Trauer et al., 2008)). The CANSAS-P is an adaptation of the CAN, which is the most widely used instrument for the assessment of needs in people with SMI. The CANSAS-P assesses whether there is a need in each of 22 life areas (such as accommodation, looking after the home, daytime activities, intimate relationships, physical health), using the following rating: 0 = no need; 1 = met need, no need or moderate problem because of help provided; 2 = unmet need; current or serious problem, whether or not help is offered or given; and 3 = do not want to answer this question. Four indices were constructed from the needs questionnaire by summing the following variables: total number of life areas with no needs; total number of met needs; total number of unmet needs; and total needs (including both met and unmet needs).

2.2.4. Demographic information

Demographic data included gender, year of birth, marital status, current living accommodations, and current day placement.

2.2.5. Disease-related information

This information included age of first emotional difficulties, age at first contact with MH services, age at first hospitalization, diagnosis, and global assessment of functioning (GAF (Endicott et al., 1976)). The GAF scale is a single-item measure of functioning, ranging from 0 (extremely severe dysfunction) to 90 (extremely good function).

2.3. Procedure

Interviewers were provided with 1 month of instruction in the theoretical, practical, and research aspects of needs assessment, followed by a one-month training on the use of the CANSAS-P. Interviewers introduced the study, its aims and procedures to staff members and service recipients and requested their agreement to participate in the study. Only those participants who provided their signed consent, were fluent in Hebrew, and were not in an active psychotic state were interviewed. Seventy-six percent of all individuals recruited agreed to participate.

2.4. Ethical considerations

The study was approved by the Ethics Committee of the School of Social Work and Social Welfare at the Hebrew University of Jerusalem and the Psychiatric Rehabilitation Unit within the Ministry of Health.

2.5. Data analyses

As suggested by the International Wellbeing Group (2006), all SWB data have been standardized to a 0–100 scale. Differences in SWB according to the participants' background characteristics were examined by ANOVA for categorical variables. Pearson correlations were utilized to examine the association between SWB, hope and needs. Finally, regression models were used in order to calculate the path coefficients that measure the direct and indirect effects of hope on SWB.

3. Results

3.1. SWB and background variables

The mean SWB score for the sample was found to be 61.6 (S.D.=18.3). No statistically significant differences in SWB were found according to most background variables, including age, marital status, and GAF. However, statistically significant differences in SWB were found according to diagnosis. Participants diagnosed with schizophrenia reported a higher SWB ($F_{(2, 166)}=3.09, p=0.048$) than individuals with other diagnoses. In terms of living environments, individuals living in hostels had a higher SWB score ($M=64.0, S.D.=19.6$) than individuals living in supported housing environments ($M=58.3, S.D.=16.0$) ($t_{(159)}=2.02, p=0.041$). No differences were found in SWB for different types of daytime activities.

3.2. Path analysis model

Findings show a strong positive correlation between hope and SWB ($r=0.57, p<0.001$). Further, bivariate analyses showed that both met and unmet needs were negatively related to SWB (met: $r=-0.16, p=0.04$; unmet: $r=-0.32, p<0.001$), and because the correlation between total needs (met and unmet needs together) and SWB had a similar direction and magnitude ($r=-0.36, p<0.001$), additional analyses were based on two need indices: no needs and total needs.

A series of regression models was then estimated as follows in order to test for mediation: 1) regressing the mediator on the independent variable; 2) regressing the dependent variable on the independent variable; and 3) regressing the dependent variable on both the independent variable and on the mediator (Judd and Kenny, 1981).

In order to calculate path coefficients three regressions were ran separately for no needs and for total needs (met and unmet needs together). In the first regression background variables were entered in the first step and needs in the second step. In the second regression, background variables were entered in the first step and hope in the second. Finally, in the third regression, background variables were entered in the first step and both needs and hope in the second step. Background variables included diagnosis (binary variable of schizophrenia vs. other diagnoses); living environment (binary variable of hostel vs. supported living); and day activity (two binary variables of sheltered vs. other day activity and open vs. other day activity). The results of the third regression for each no needs and total needs are presented in Table 2. For the sake of simplicity, the control variables are not shown.

In terms of background variables, only living environment was found to be significant in the first regression model. None of the other background variables examined were found to be significant, nor was living environment found to be significant in the subsequent regressions. Therefore, they were dropped from further analysis.

Results of the regression analyses showed that 18.5% and 19.3% of the variance in SWB were predicted by no needs and total needs, respectively. However, no needs and total needs were predictive of

SWB in opposite directions, with no needs being a positive predictor ($\beta=0.38$) and total needs a negative predictor ($\beta=-0.39$) of SWB. Furthermore, hope was predictive of 33.9% of the variance in SWB. When placed together in a regression model (see Table 2), hope and needs were predictive of 40% of the variance in SWB, with hope being a stronger predictor of SWB. That is, hope increased the predictability of the model from 19% to 40%. Power estimate was calculated for testing the hypothesis of no change in r -squared due to hope above needs against the alternative hypothesis of increase of 0.21, at a significance level of 0.05, and a sample size of $n=153$ and found to be at a satisfactory level (0.80).

In the next step of the analysis, we examined the mediation model for the direct effect of hope on SWB and the effect of hope through needs. Two path-analysis models were constructed, one for the variable of no needs and the second for the variable of total needs. The results (see Fig. 2) show that the direct effect of hope on SWB was strong with Path coefficient of 0.52. The effect of hope, as mediated through needs, was lower with Path coefficient of 0.05 for no need and 0.06 for total need. It should be noted that the effects of no needs and total needs on SWB were in opposite directions, with no needs having a positive and total needs having a negative effect on SWB.

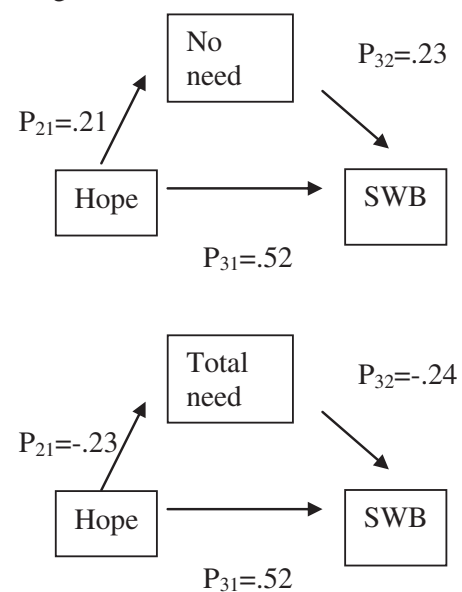
4. Discussion

This study focused on the SWB of individuals with SMI and examined hope as a predictor variable of SWB mediated by needs. The mean SWB in the current study was found to be lower than the average set-point of 75 for Western populations (Cummins et al., 2010). According to Cummins et al.'s (2010) guidelines, 70 + points = normal; 51–69 points = either a low set-point or a strong homeostatic challenge, even defeat; and 50 or less points = homeostatic defeat and depression. Thus, the current sample faces a strong homeostatic challenge. Two explanations can be proposed to explain this finding. First, it is possible that individuals in Israel generally tend to report lower SWB than that reported in other Western nations. Differences between countries can potentially show cross-culturally valid differences in the responses of the individuals (Geyh et al., 2010). Because no Israeli norms are

Table 2
Regression predicting SWB from needs and hope ($N=153$).

Independent variables	Standardized regression coefficient	SEB	P	R ²
No needs	0.27	0.35	0.000	0.401***
Hope	0.48	2.09	0.000	
Total needs	-0.28	0.36	0.000	0.401***
Hope	0.48	2.09	0.000	

Mediation models for SWB,
using no needs and total needs



Note: P=Path coefficient

Fig. 2. Mediation models for SWB, using no needs and total needs.

available for the PWI scale, we are not able to confirm this hypothesis. However, the possibility of cross-cultural differences in QoL questionnaires has been previously raised by other studies (Lau et al., 2005; Geyh et al., 2010).

A second, and more plausible, hypothesis is that SMI and the life experience that accompanies SMI may take its toll of lowering the SWB in this population. This hypothesis is supported by studies reporting lower QoL among individuals with SMI (Bengtsson-Tops and Hansson, 1999; Ponizovsky et al., 2003). Furthermore, a study utilizing the PWI in a different field of disability (spinal cord injury) in Israel and other Western countries has shown PWI scores to be lower than the average set-point (Geyh et al., 2010). This finding is disturbing and strengthens the importance of developing services aimed at improving the SWB of individuals with SMI.

Another finding in this study was of hope as a strong predictor of SWB. Given that both SWB and hope were identified as two of the 10 recovery components by the US National Consensus Statement on Mental Health Recovery (Substance Abuse and Mental Health Services Administration., 2006), the results of this study provide further support for the important role of hope in the recovery process of individuals with SMI. The findings strengthen the conception that in order for mental health services to foster recovery, they must work in ways that foster hope and optimism. Thus, clinical programs that re-introduce and sustain hope (Schrank et al., 2008), as well as mastery-based interventions, are needed in order to improve the SWB of individuals with MI (Ho et al., 2010). Moreover, traditional therapeutic interventions, such as education, goal-setting, problem-solving, and cognitive-behavioral therapy need to be augmented by hope-instilling interventions (Lopez et al., 2000; Snyder et al., 2000). Peer-provided services, in which consumers serve as role models for other consumers, may also help to foster hope among those who are still learning to manage the symptoms of MI (Mead et al., 2001).

Patient-rated total needs were found to be related to SWB. These findings are in line with previous research (e.g., (Bengtsson-Tops and Hansson, 1999; Slade et al., 2004; Slade et al., 2005) showing that needs, whether met or unmet, have a negative impact on individuals' SWB. Our findings, together with evidence from previous studies (Slade et al., 2005), indicate that meeting patient-rated needs should be the starting point for mental health care.

However, the finding that total needs was negatively related to SWB, while only no needs was positively associated with SWB, is in line with previous findings that a decrease in the total number of needs, and not solely a decrease in unmet needs, predicts QoL improvement (Bjorkman and Hansson, 2002; Fakhoury et al., 2002). Indeed, the current findings also show that it is not enough to offer services that meet the needs of individuals with SMI. In order to improve SWB, services must be geared toward moving the individual away from having unmet needs to having met needs and then one step further to having no needs. Thus, as a first step toward improving SWB, services should be based on unmet needs. However, as a further and more important step, these services should also focus on met needs and provide individuals with the tools required to meet their own needs independently.

One explanation for these results is that those individuals who have more met needs are also those who have more needs in general and possibly a lower level of functioning (Bengtsson-Tops and Hansson, 1999; Lasalvia et al., 2005). As a result, they have a lower perception of their SWB. Another possibility is that individuals with higher needs are more dependent on others and on services and are thus less satisfied with their SWB. A third possibility relates to the self-perception of no need vs. met need and the difficulty in distinguishing between the two. If an area is relatively unproblematic to an individual, then one might infer that there are no difficulties in that area. However, care providers are more likely to conclude that the lack of perceived need is the result of services provided which met that need.

This study further tested a mediation model for the relationship between hope, needs, and SWB. The results supported our overall hypothesis that hope is positively related to SWB and that this positive relationship is mediated by needs. Furthermore, all four specific hypotheses in the mediation model were supported: hope was found to be positively related to SWB; needs were found to be positively related to SWB; hope was found to be positively related to needs; and hope was found to be a positive predictor of SWB through the mediating variable of needs.

The mediation model suggests that hope can serve both as a direct positive influence on SWB and as a mechanism for meeting needs, which in turn serves to increase SWB. These findings have several implications for services. First, they suggest that individuals with differing levels of hope may actually perceive needs differently. Those with higher levels of hope may feel that they have more ability to set and pursue goals than do individuals with lower levels of hope. Thus, although hope may be seen by some as a basic characteristic or attribute of the individual (Cutcliffe, 1996), services to those with SMI must be geared toward building hope (Ho et al., 2010). Moreover, individuals should be empowered and provided with the skills and capabilities that will enable them to meet their own needs and gain independence from such services. Only then will they be able to perceive themselves as having a low number of needs in the long run.

4.1. Limitations and strengths of the current study

The current study has several limitations. First, the sample is a non-probability and heterogeneous sample which was examined at one-point of time in a cross-sectional analysis (though it was not different from the population of individuals with SMI in Israel). Second, the power calculation in the study was conducted post-hoc. Third, although common in studies conducting needs assessments (Trauer et al., 2008; Wiersma et al., 2009), it should nevertheless be acknowledged that participants were interviewed by several interviewers. Finally, the current study did not focus on specific needs domains, which should be a topic for future studies.

Despite these limitations, the current study has important theoretical, methodological, and practical implications. Regarding the theoretical significance, for the first time we have shown the mechanism by which needs mediate the effect of hope on SWB. In terms of methodology, the study was conducted using the PWI, which is the most updated and relevant measure of the SWB construct. Practically, the results of the study point to the need for hope-building services and treatment to foster independence and help individuals resolve their unmet needs. Examining the role of hope and needs assessment in SWB is one of the ways of improving the lives of persons with MI, and the present study represents a positive step in this direction.

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