A Systematic Review of Individual Placement and Support, Employment, and Personal and Clinical Recovery

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Highlights:

The study found:

- Associations between competitive employment and improvements in negative symptoms, level of functioning and quality of life.
- No associations between IPS and clinical and personal recovery compared to service as usual.
- The combination of IPS and competitive employment did not lead to further enhancements in recovery than competitive employment alone.

Previous presentation: Data have not previously been presented

Abstract:

Objective: The objective of the study was to assess associations between Individual Placement and Support (IPS), employment and personal and clinical recovery among persons with severe mental illness at 18 months follow-up.

Methods: Besides applying a systematic literature search and meta-analyses, pooled original data from five studies were analysed to achieve the objectives.
The literature search included randomized controlled trials (RCTs) comparing IPS to service as usual (SAU). Primary outcome was self-esteem, and secondary outcomes were empowerment, quality of life, symptoms of depression, negative or psychotic symptoms, anxiety and level of functioning.

Results: In the systematic review eight RCTs were included. Meta-analyses and analyses of pooled original data showed that IPS did not improve the primary outcome or any of the secondary outcomes. For participants employed less or more than median weeks an improvement in negative symptoms was found ((-0.25 SMD, CI: -0.40,-0.09), (-0.41 SMD, CI:-0.56, -0.26), respectively) compared to participants not working. Improvements were also found in level of functioning in participants working less or more than median weeks ((0.23 SMD, CI: 0.07, 0.39), (0.59 SMD, CI: 0.42, 0.77), respectively). Participants employed more than median weeks improved quality of life (0.34 SMD, CI: 0.14, 0.54).

Conclusion: Mental health services should focus on rehabilitation initiatives since employment associates with improvements in negative symptoms, level of functioning and quality of life.

Introduction

Severe mental illness such as schizophrenia, bipolar disorder and major depression often leads to large and long-lasting human costs. These include lower level of functioning, low self-esteem, loss of earnings and financial deprivation[1-6]. The evidence-based program Individual Placement and Support (IPS) aims to help persons with severe mental illness to achieve work and is in this regard superior to other vocational rehabilitation programs [7-9]. The IPS program is based on eight empirically supported principles: 1) competitive employment is the goal; 2) rapid job search; 3) eligibility for the program is based on the participant's choice; 4) attention to participant's

preferences regarding type of job and disclosure of psychiatric illness to potential employers; 5) integration of IPS with the mental health services; 6) time-unlimited individualized support after obtaining a job; 7) social insurance and benefits counselling, and 8) systematic job development and engagement with employers[8].

IPS is labelled a recovery-oriented intervention[10, 11], as it not only aims at helping people get jobs, but more fundamentally, it is designed to support people live an independent functionally engaged life. Moreover, the IPS strategies (e.g. attention to participants' preferences, individualized unlimited support and rapid search for competitive employment) might be expected to foster hope, self-determination and inclusion[11]. Nevertheless, the empirical support for the recovery framing is questionable and there is a need to address this mismatch. Non-vocational outcomes (e.g. mental health symptoms, self-esteem and quality of life) are in the recovery literature often divided into personal and clinical recovery. Personal recovery focuses on living a satisfying, hopeful and contributing life even with limitations caused by the illness, whereas clinical recovery focuses on improvements in mental health symptoms and level of functioning[12-14]. When investigating whether IPS in itself is associated with improvements in recovery, it should be borne in mind that the main target of IPS, work, has been connected to improvements in self-esteem, quality of life and level of functioning[15, 16]. Therefore, it is worthwhile exploring whether IPS is associated with additional benefits to recovery beyond those of work. The aim of this systematic literature review was to assess the associations between IPS, work and personal and clinical recovery among persons with severe mental illness at 18 -month follow-up. The follow-up period was chosen since many IPS studies use this timespan. It was assumed that 18 month was a clinically relevant time span to measure associations between IPS, work and recovery outcomes. Outcomes considered, from a clinical perspective, to influence personal and clinical recovery were chosen.

The following hypotheses were tested:

IPS is associated with personal recovery (self-esteem, self-efficacy, hope, empowerment and quality of life) and clinical recovery (symptoms of depression, negative and psychotic symptoms, anxiety and level of functioning) compared to service as usual (SAU: interventions not using IPS or modified/adapted versions of IPS).

IPS is associated with personal and clinical recovery compared to SAU when stratified for number of weeks worked.

Number of weeks worked, independent of IPS, are associated with personal and clinical recovery compared to no weeks worked.

Methods:

This review followed a priori-defined protocol published on PROSPERO, (https://www.crd.york.ac.uk/prospero) protocol no.: CRD42017055587. The protocol was developed following the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA)[17]. Following this protocol, a literature search was conducted and meta-analyses of data from eligible studies were utilized in order to answer the hypotheses. If the hypotheses could not be answered using meta-analyses, study authors were contacted and requested to provide data for analyses of pooled original data.

Literature search:

Comprehensive literature searches were conducted on 21 June 2017 and updated on 11 January 2019 by two librarians at the library of University of Southern Denmark. The following databases were searched: Medline, Embase, PsycInfo, Scopus, Web of Science, Cochrane, Cinahl, Sociological abstracts and OT seeker. Additionally, ClinicalTrials.gov and the World Health Organization International Trials Registry Platform (WHO ICTRP search portal) were searched for unpublished material. There were no limitations regarding year of publication or language. Bibliographies from primary studies and review articles were hand -searched. The updated search strategy is presented in the Online Supplement.

Inclusion criteria:

Study design: RCT.

Scales used in the study for outcome measures were psychometrically described in peer -reviewed journals and used without modifications.

Study participants were unemployed adults of either sex, aged 18-65, with severe mental illness, defined as schizophrenia, schizotypal, or delusional disorders, bipolar disorder or severe depression, according to the WHO International Classification of Diseases version 10 (ICD10) or the Diagnostic and Statistical Manual of Mental Disorders (DSM) 5th edition [18, 19].

The study compared the IPS with SAU or other interventions not using IPS or approaches derived from it.

IPS had submitted to regular fidelity reviews and achieved good or fair fidelity [20, 21].

The study measured outcomes at 18 -month follow -up.

The study included outcome measures related to self-esteem, empowerment, quality of life, hope, self-efficacy, depression, psychotic and negative symptoms, anxiety and level of functioning.

Literature search:

The electronic literature search resulted in identification of 2,167 unique citations (search string and flow diagram available online). A total of 2,099 citations were excluded based on title and abstract screening, leaving 68 articles for full-text review. After the full-text review, eleven articles remained[16, 22-30+ref x], which covered eight trials. The primary reasons for exclusion after full-text review was that the intervention failed to fulfil the IPS fidelity criteria or that results were not measured at 18 -month follow-up. Six trials[16, 22, 23, 25, 26, 29-31+ref x] and five trials[16, 22, 23, 25, 30, 31+ref x] were found eligible for meta-analysis and pooled original data, respectively. The selection process, data extraction and study characteristics are available online.

Exposure variables:

IPS/SAU and 'weeks in employment' were exposure variables. The variable 'weeks in employment' was defined by three categories: 1: no employment, 2: < median weeks in employment and 3: ≥ median weeks in employment. 'Median weeks in employment' was defined according to each trial.

Service as usual:

SAU was overall defined the same way in the included studies, namely as traditional vocational services. These services were facilitated by mental health professionals or by public services based on an assessment of the patients rehabilitations needs. They included prevocational activities such

as voluntary jobs before placement in regular jobs and thus based on the more traditional principles of "train and place"

Outcome measures:

Four trials[16, 23, 30 + ref x] measured self-esteem by the Rosenberg Self-Esteem Scale[32].

Two trials[22 ref x] measured empowerment with the Empowerment Scale[33].

Five trials[16, 22, 23, 29, 30] measured quality of life with; The Brief Version of Quality of Life Interview, the Lancashire Quality of Life Profile [34, 35] and the Manchester Short Assessment of Quality of Life (MANSA)[36]. One study used the Short form Health Survey (SF12)[37 +ref x] to measure quality of life. This scale differs from the other scales used to measure quality of life by measuring health-related quality of life. Therefore results on quality of life from that particular trial were excluded from analyses.

Hope and self-efficacy outcomes were excluded since these were only measured by single trials[22 + ref x].

Two trials[23, 30] measured depressive symptoms with the Positive and Negative Symptom Scale[38]. In addition, one[23] of the two trials also measured depressive symptoms by the Hospital Anxiety and Depressions scale (HADS)[39]. Another trial used Hamilton 6-item depression scale (HamD6)[40+ ref x]. Based on these three scales, depressive symptoms were categorized as mild, moderate or severe. Mild was defined as: 1-3 on PANSS, 0-7 on HADS and 0-6 on HamD6; moderate: 4-5 on PANSS, 8-10 on HADS and 7-11 on HamD6; severe: 6-7 on PANSS, 11-21 on HADS and 12-22 on HamD6.

Negative and psychotic symptoms were reported in four trials[23, 29, 30+ref x] measured with Positive and Negative Syndrome Scale for use in schizophrenia (PANSS)[38], the Scale for the Assessment of Negative Symptoms (SANS)[41] and the Scale for the Assessment of Positive Symptoms (SAPS)[41] . Positive and negative symptom scores from SANS and SAPS were converted into PANSS equivalent scores[42]. Three trials[23, 29, 30] measured anxiety with the Positive and Negative Syndrome Scale for schizophrenia (PANSS). Three trials[23, 30 + ref x] measured level of functioning with Global Assessment of Functioning (GAF)[43].

The scales used by the six trials are outlined in the Online Supplement.

Statistical methods:

The meta-analyses were conducted on standardized mean differences (SMD) calculated from the means and standard deviations (SD) in the raw data for self-esteem, empowerment, quality of life, depressive, negative and psychotic symptoms, anxiety and level of functioning. Kukla et al.[29] did not provide raw -data but reported means and SD suitable for meta-analyses[29]. The effect sizes used in the meta-analyses were calculated as the raw difference between IPS and SAU mean scores at 18 -month follow-up divided by the pooled SD.

Descriptive baseline data for pooled original data were presented using means and SD for numerical variables and n (%) for categorical variables.

For analyses of pooled original data the numerical outcomes (self-esteem, empowerment, quality of life, psychotic and negative symptoms, anxiety and level of functioning) were all standardized within each study to have one common scale (mean=0, SD=1) when estimating treatment effects. These variables were analysed using linear regression with robust standard errors. For depressive symptoms a standardization of the numerical baseline score was used to adjust for baseline severity. Depressive symptoms were categorized in three levels (mild, moderate, severe); the proportional odds model was used and log scale estimates were reported. All estimates derived from pooled original data were adjusted for age, gender, site and trial as well as the baseline score of the variable in question.

Analyses were carried out on numerous secondary and exploratory outcomes. Therefore the alpha level of significance was Bonferroni corrected by number of outcomes which leads to a level of significance of $p < 0.007$. For all analyses 95 % confidence intervals were used. Heterogeneity in effect estimates were assessed using the I^2 statistic[44].

Results

Meta-analysis:

A total of six trials (n=1,243) reported data suitable for meta- analyses: Bejerholm et al. 2013[22, 25]; Burns et al., 2009[23, 31]; , Bond et al., 2013[26, 29], xxxx[ref X,] Michon et al., 2014[16], and Mueser et al., 2004[30].

Associations between IPS and personal and clinical recovery:

Meta-analyses showed no associations between IPS and improvements in self-esteem, empowerment, quality of life, depressive, negative and psychotic symptoms, anxiety and level of functioning compared to SAU (Figure 1). Overall effect sizes were small, ranging from -0.04 to 0.16, CI -0.2, 0.35. No heterogeneity above 0.0 % was observed, except for quality of life (I^2 = 45.9%, p=0.116).

(Figure 1, about here)

Pooled original data:

Authors from five out of eight trials provided raw-data for pooled analyses (Bejerholm et al. 2013/2015[22, 25], Burns et al. 2007/2009[23, 31], xxxx[ref x], Michon et al. 2014[16], Mueser et al., 2004[30]).

Descriptive characteristics of study population from pooled original data:

A total of 1,488 participants were included from the five studies. Participants with diagnoses other than psychotic or affective illness were excluded (n=52). The same applied to participants with all missing outcome data on the outcomes considered (n=337). Moreover, 43 were excluded due to missing data on number of weeks worked. Thus, the study population consisted of 1,056 participants.

Of the study population the majority was male and mean age was 35 years (Table 1). Diagnoses spanned schizophrenia or psychotic illnesses, bipolar disorders and depression. The number of participants receiving IPS was 595 (56.3%) (results not shown in tables). The number of

participants employed: zero weeks, n=682 (64.6%); < median weeks, n=190 (18%) and ≥ median weeks, n=184 (17.4%).

(Table 1, about here)

Associations between IPS and personal and clinical recovery modified by weeks in employment:
No associations were observed between IPS modified by weeks in employment and clinical and personal recovery (Table 2). Among participants working zero weeks, there was a tendency that negative symptoms improved more for the SAU group compared to the IPS group (-0.20 SMD, CI:0.04, 0.36, p=0.017). After Bonferroni correction this tendency was insignificant.

(Table 2, about here)

Associations between extent of employment (measured in weeks) and personal and clinical recovery independent of IPS:
Improvements were found for negative symptoms in employed participants < median weeks and for employed participants ≥ median weeks compared with participants not employed ((-0.25 SMD, CI: -0.40,-0.10) and (-0.41 SMD, CI:-0.56, -0.26), respectively) (Figure 2 and table in Online Supplement). Level of functioning improved for employed participants < median weeks and ≥ median weeks compared with participants not employed ((0.23 SMD, CI: 0.07, 0.39) and (0.59 SMD, CI: 0.42, 0.77), respectively). Improvements were found for quality of life in employed participants ≥ median weeks compared with participants not working (0.34, CI: 0.14, 0.54).

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(Figure 2, about here)

Discussion

The aim of the systematic review was considered to be best answered by means of meta-analyses and analyses of pooled original data. Six trials and five trials provided data for the meta-analyses and the pooled data analyses, respectively.

Associations between IPS and personal and clinical recovery:

The study found no associations between IPS and personal and clinical recovery compared to SAU. Meta-analyses showed small effect sizes in all measured outcomes, indicating that any effects of IPS on personal and clinical recovery were restricted to a narrow region of small, clinically irrelevant effects. Results from pooled original data regarding whether the combination of IPS and competitive employment was connected to further increment of recovery than employment alone showed no further enhancement. A number of causes should be considered when trying to explain this relation. Firstly, IPS does not explicitly focus on the items measured in the recovery scales. Employment is the core aim of IPS and thus the proximal outcome, while clinical and personal recovery are distal outcomes and could be father away from being affected by IPS. Secondly, it could be speculated whether methodological challenges somehow affect the outcomes. It is worth considering whether self-reported rating scales, which are used in data -collection to indicate outcomes of e.g., self-esteem and empowerment, actually capture the desired phenomena they are developed to illuminate. An argument why there could be a problem in collecting data by self-reporting rating scales could be that the rating scales are too crude and large-meshed to capture important detail. Thirdly, recovery outcomes might be affected by numerous other factors in a person's life than IPS, e.g. interpersonal relationships, side effects of medication or other options made available from community mental health centres or volunteer organisations. Consequently, changes derived from just IPS alone might be difficult to show. A way of handling these challenges might be to introduce other methodologies. Research traditions within phenomenological psychopathology draw upon other methods. Here phenomena are studied using video-recorded semi-structured interviews and the volume of sample size varies from 50 to 100 participants. This allows for the use of both qualitative and statistical analysis[45]. Considering new methods for investigating associations between IPS and personal and clinical recovery might lead the IPS literature into new pathways. It is also worth mentioning that the selected trials for the present study did not have effectiveness of IPS and employment on recovery as their primary outcome. We believe that trials that aim to investigate the impact of IPS on personal and clinical recovery are warranted in order to clarify and address causality in this regard. Finally, it is likely that IPS is limited to affecting its core-aim only, namely to provide competitive employment. Thus no matter how much effort is put into methodological changes measuring the recovery outcomes, they might still turn out as null-findings. In general, a relatively large group of IPS participants does not succeed in finding employment. Furthermore, a substantial part of the employed participants attains short-term jobs at a low wage. This might very well contribute to null-findings in the recovery

outcomes. Tanaka and Davidson suggest IPS to be integrated in 'the enclave community' broadly defined as a subculture of likeminded persons exemplified by Fountain House, New York, US, Bethel's House, Hokkaido, Japan or the kibbutz movement in Israel. It is argued that IPS by itself is limited in promoting the broader outcome of social inclusion. Integrating IPS in psychosocial-collective models such as 'enclave communities' might be profitable in order to achieve better social inclusion as well as a better foundation for employment[46]. The idea of integrating or merging IPS with other psychosocial ideologies or constructs might seem interesting or even attractive. Nevertheless, one should be aware that the ideologies behind collectivistic communities however open-minded and accepting they are thought to be, house the risk of developing inadvertent power structures since such institutions often lack impartial complaint entities. Another concern would be, if the free press should be allowed access to these communities or if the communities were rather thought to have a kind of protective role for the citizens from the rest of the world? Municipalities or other authorities could perhaps administer such 'enclave communities' whereby the risk of inadvertent power structures would be reduced or even eliminated. However, it might be difficult to convince politicians of such especially since the initiatives would perhaps be more expensive than todays' drop-in centres for persons with mental illness. Further, it could be argued, that drop-in centres are already fulfilling the role of providing a safe, confident place wherefrom social inclusion arises and wherefrom other parts of society can be explored.

Associations between employment and personal and clinical recovery:

The study found reductions in negative symptoms in employed participants compared to participants not working. The results were within the same range as in a study by Petersen et al. on integrated psychiatric treatment for patients with a first episode of psychotic illness[47]. Petersen et al. concluded that the effect size was small but of clinical relevance. Even though the reduction in negative symptoms found in the present study was small, it could still be important for participants and clinicians. Especially since most antipsychotic medication is not superior to placebo in treating negative symptoms[48]. Moreover, due to the great variety of adverse side effects to antipsychotic medication, it is important to have non-pharmaceutical alternatives available to help improve negative symptoms.

As in other studies, employment was associated with greater improvements in level of functioning over time compared to no employment[49]. This finding ought to be interpreted cautiously since occupational functioning in particular forms part of the evaluation when level of functioning is assessed[43]. Changing employment status from unemployment to employment causes noticeable increases in GAF scores of between five and ten points – an increase considered to be of clinical importance[50].

Improvements were seen in quality of life for participants employed for more than median weeks. This corresponds to the moderate effect size reported by van Rijn et al.[51].

It is beyond the scope of this paper to conclude on causality. Whether employment induces improvements in the above-mentioned outcomes or, conversely, whether improvements in outcomes lead to increases in employment capacity cannot be decided. Yet, based on the present study as well as former studies it is worth discussing whether IPS should be recommended to community mental health services in general. The results of the present study showed that the IPS intervention by itself does not support clinical and personal recovery outcomes. This finding is in accordance with findings from previous meta-analyses on supported employment [9, 51]. On the other hand the results showed no negative clinical implications connected to participation in IPS. Just as important, results pointed out important associations between employment and recovery outcomes such as negative symptoms and quality of life. These results together with the evidence from other studies, reviews and meta-analyses convincingly showing, that IPS is the most effective rehabilitation service to help persons with severe mental illness achieve competitive employment should most definitely point towards a recommendation that mental health services implement IPS and awaits future research regarding causal relationships between employment and recovery outcomes.

Strength and limitations:

The study was based on a comprehensive systematic review of RCTs aimed at finding all possible studies performed in the area. Even though the number of studies in the present meta-analysis were small, a number of the studies were new and not included in older meta-analyses. Moreover, this meta-analysis only analysed studies where the intervention was IPS. Most other reviews and meta-analysis include a variety of supported employments services. The associations between IPS, employment and personal and clinical recovery were obtained through pooling original data, which permitted adjustments for potential confounders, which would not have been possible in a meta-

analysis. The five studies that provided raw -data all achieved good and fair fidelity and study quality was generally good, though three out of five studies did not use blinded assessors. This might have compromised outcome reporting and produced overestimated effect sizes.

The studies included four European and one American RCT. Since one European trial investigated effectiveness of IPS in six European countries, data in the present study came from ten countries. In all, this contributes to high generalizability. Authors from three studies did not provide raw-data. These studies reported, as well, no effects on recovery when comparing IPS to SAU. Thus, inclusion of the studies would probably not have changed the effect; however, it could have improved power in the analyses. Even though the generalizability is high the trials represent western countries only (US and within Europe). Associations between IPS, recovery and employment in non-western cultures remains to be determined.

The studies did not use identical scales for outcome measures, i.e. different scales were used in measuring psychotic and negative symptoms. Hence, a standard conversion was applied. The numerical outcomes were all standardized to limit the introduction of bias from varying scales and variances, e.g., a higher variance in one study would lead to a disproportionate weight given to that study in the overall estimates.

Instead of total hours in employment, weeks in employment were used as exposure variable; given that the IPS intervention encourages participants to find the right work-life balance instead of aiming at the more work the merrier. According to IPS, attachment to the labor market over time is more important for recovery than total hours of work[52].

The study covered different recovery outcomes in order to broadly span the topic. The multiple outcomes, may as well, limit the strength of the study by increasing risk of type 1 error. This was addressed by Bonferroni correction ($p \leq 0.007$). The study did not succeed in answering all outcome measures since hope and self-efficacy were measured by only a few studies.

Outcomes were only evaluated after 18 month, which was a pragmatic choice. It would have been preferable to look at the associations between IPS, employment and recovery according to shorter follow-up periods e.g. 6 month or 12. This would yet expand the already large number of outcomes even further increasing risk of type 1 error.

Racial information was not reported, making it difficult to determine whether differences in outcomes might exist across racial minorities.

Conclusion

The study found no associations between IPS and clinical and personal recovery compared to SAU at 18-month follow-up. The study found associations between improvements in negative symptoms and level of functioning and quality of life in regard to weeks in employment, but causality could not be addressed. The combination of IPS and competitive employment did not lead to further enhancements in recovery than employment alone.
Future studies should focus on causality between negative symptoms, quality of life and employment among persons receiving IPS.

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Figure captions:

Figure 1: Forrest plots comparing the effects of IPS and SAU on personal and clinical recovery outcomes.

Figure 2: Associations between personal and clinical recovery outcomes and employment. *Note:Qol, quality of life; Level of funct., level of functioning.*

Table 1:Descriptive characteristics of studies included in analyses of pooled original data. *Note: Median and interquartile range (IqR) calculated only for individuals with > 0 weeks in employment.*

	Burns *et al.*		xxxxx		Michon *et al.*		Mueser *et al.*		Total			
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**		
Total	227		533		61		169		1056			
Female	142	62.6	323	60.6	47	77.0	105	62.1	651	61.6		
Male	85	37.4	210	39.4	14	23.0	64	37.9	405	38.4		
Caucasian	184	81.1	410	76.9	50	82.0	130	76.9	829	78.5		
African American	43	18.9	64	12.0	5	8.2	10	5.9	128	12.1		
Hispanic	0	0.0	59	11.1	4	6.6	29	17.2	97	9.2		
Other	0	0.0	0	0.0	2	3.3	0	0.0	2	0.2		
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**		
Age	37.5	9.8	33.3	9.9	36.1	10.0	37.7	9.2	35.4	9.9		
Education	13.2	21.5	10.9	19.8	5.8	14.2	10.4	20.8	10.8	19.5		
Psychosis	22.7	5.1	14.3	5.7	18.7	3.6	18.4	4.8	18.0	6.0		
Duration of illness	6.3	4.1	6.3	4.1	.	.	.	.	6.3	4.1		
Hospitalizations	15.1	6.1	14.6	3.2	.	.	17.7	6.1	15.3	4.8		
Substance abuse	13.0	4.8	12.6	3.4	.	.	13.5	4.6	12.9	4.0		
Criminal history	.	.	47.2	8.5	.	.	.	.	51.0	13.4		
Employment	54.9	20.0	.	.	51.1	16.9	56.6	19.2	54.7	19.2		
Unemployment	54.3	13.1	45.2	10.0	.	.	51.1	8.5	48.6	11.3		
Homelessness	2.8	1.4					2.3	1.3	2.6	1.3		

Table 2: Associations between IPS and personal and clinical recovery modified by weeks in employment. *Note: SMD: Standardized mean difference. Log reg coeff: logistic regression coefficient. Reference group is SAU.*

	Zero weeks n=683 (64.6%)		**< Median weeks n=190 (18.0%)**		**≥Median weeks n=184 (17.4%)**	
	SMD	**CI**	**SMD**	**CI**	**SMD**	**CI**
Self-esteem	0.04	-0.10−0.18	0.04	-0.25−0.33	0.03	-0.36−0.41
Empowerment	0.11	-0.06−0.28	0.16	-0.29−0.60	-0.02	-0.42−0.37
Quality of life	0.16	-0.07−0.38	-0.07	-0.39−0.26	-0.19	-0.55−0.16
Negative symptoms	0.20	0.04−0.36	-0.01	-0.30−0.28	0.03	-0.29−0.35
Psychotic symptoms	0.00	-0.15−0.15	0.13	-0.12−0.39	-0.04	-0.33−0.25
Anxiety	-0.13	-0.40−0.13	0.24	-0.22−0.70	-0.07	-0.64−0.50