Article

Correlates of Control Preferences, Participation in Decision-making and Activation in Patients with Substance Use Disorder

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Abstract

Background: Treatment of Substance Use Disorder (SUD) is complex and therefore including patients in the therapeutic process is needed. Patient-Centered Care (PCC) and Shared Decision-Making (SDM) have been associated with greater satisfaction, self-control, and less substance use. However, correlates of SDM have not been investigated in this population.

Method: A cross-sectional analysis was carried out in 214 SUD patients to identify sociodemographic, clinical and psychological correlates of preferences and perceptions about participation in SDM and degree of activation. The Control Preference Scale (CPS), the Shared Decision-Making Questionnaire (SDM-9-Q) and the Patient Activation Measure (PAM) were used to assess the PCC elements. Multinomial logistic regression was used to analyze the correlates of the CPS variables (preferred role, perceived role, and role matching). For SDM-9-Q and PAM, multilevel linear regression was used.

Results: Preferring an active role, compared to a shared one, was significantly associated with higher educational level, lower neuroticism, absence of affective and alcohol use disorders, and higher quality of life. Perceiving greater participation was significantly associated with not being a new patient, having fewer legal problems, higher severity of alcohol consumption, not presenting polydrug use and main substance use different than opioids or sedatives. Activation was associated with higher scores in the personality trait activity, a preference for an active role and greater perception of being involved in the decision process.

Conclusions: Patients with milder clinical profiles prefer an active role compared to a shared one. Patients who prefer or perceive a shared or passive role did not show relevant differences. Greater activation was related to preference for an active role and the perception of having been involved in decisions.

Keywords

shared decision-making; patient preference; substance use disorder; patient autonomy

Introduction

In the treatment of Substance Use Disorder (SUD), there is a growing interest in the patient being an active part

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of their therapeutic process [1]. Some studies carried out in this population suggest that sometimes, the objectives and therapeutic results that patients consider important do not coincide with those proposed by the professionals, leading to worse health outcomes [2–4].

Currently, Patient-Centered Care (PCC) is considered a gold-standard model of care, characterized by attending to patients' needs, giving emotional support, good coordination between the different health services involved in patients' care and an adequate continuation of service, and promoting the participation of patients in medical decisions [5]. This model of care is among the priority objectives of the World Health Organization (WHO) with the aim of improving the quality of health services and health outcomes [6,7]. The main component of PCC is Shared Decision-Making (SDM), the process by which patients and healthcare providers are engaged in a collaborative dialogue to reach informed and personalized decisions. In the field of SUD, SDM has been associated with greater satisfaction with treatment, increased feeling of achieving therapeutic goals [8], more self-control and reduced substance use [1,9], a reduction in the severity of SUD and comorbid psychiatric pathologies [1]. Given this evidence, some treatment guidelines already point out the importance of SDM in the clinical approach to SUD [10,11].

It is expected that a more patient-centered approach will improve patient activation, defined as the adequate knowledge, motivation and skills to assume responsibility for managing their own health; having been related to greater patient participation in their own treatment [12]. Greater activation has been associated in other health conditions with a greater commitment to prevention and self-care habits, higher quality of life, greater satisfaction with the care received, greater pharmacological adherence, reduced use of health resources (medical and emergency visits, and hospital admissions), and health care costs but it has still been scarcely studied in the population with SUD [13–15].

Currently, there are few studies assessing SDM or patient activation in the field of SUD, and published results are inconsistent. It is not known with certainty how much and how patients want to participate in their treatment [16]. Some studies suggest that while some patients want to take an active role in their treatment [17–19], others prefer obtaining more information than responsibility when making decisions [20].

As a part of a prospective study evaluating the association of decisional variables and patient activation with treatment outcomes, we present a cross-sectional analysis of the sociodemographic, clinical and psychological correlates of SUD patients' preferences and perceptions about SDM in consultation, as well as their level of activation.

Materials and Methods

We used the baseline data collected in a prospective observational study aimed to investigate the association of decision-related variables and patient's activation with the outcomes of SUD treatment. The study was conducted in the outpatient service for addictions of the Hospital Vall d'Hebron (Barcelona, Spain). This study was approved by the Hospital Ethics Committee (code: PR(SC)19/2010), and it was carried out following the principles of the Helsinki Declaration [21]. There was no financial compensation for participation. The patients were included if they met the following criteria: (1) age over 18 years, (2) meeting SUD criteria according to the Diagnostic and Statistical Manual of Mental Disorder (DSM-5); (3) showed the ability to understand and fill out the research questionnaire, in the opinion of the physician; and (4) signed the informed consent. Both new patients and patients who already were under treatment at the center were included. Patients were excluded if they: (1) presented a state of intoxication at the time of the interview, (2) had decompensated psychiatric disorder, (3) presented language barriers or (4) were involved in a pharmacological clinical trial.

Patients who met the inclusion criteria were recruited by trained staff, informed about the study, and invited to participate. Those who accepted and signed the informed consent received the different self-administered questionnaires. In the psychological visits, the severity of the addiction and the psychiatric comorbidity were assessed with validated instruments (see below).

Measures

Independent Variables

An ad-hoc questionnaire was utilized to gather information on sociodemographic, clinical, psychological, and health-related variables. The collected data included age, gender, education, marital status, job status, substance use at baseline, prior follow-up status as a patient, new patient status, and type of substance.

The Spanish adaptations of the Semi-Structured Clinical Interview for DSM-IV Axis-I Disorders (SCID-I) and the Semi-Structured Clinical Interview for DSM-IV Axis-II Disorders (SCID-II) were utilized to evaluate psychiatric comorbidities [22].

The Spanish version of the European Addiction Severity Index (EuropASI) was used to measure addiction severity. It considers medical, occupational, legal, family and social status, psychological problems and substance use his-

tory through a semi-structured interview. The median for each component was used for the analysis [23].

Quality of life: The 36-Item Short Form Health Survey (SF-36) was used to measure both physical and psychological quality of life from the patient's perspective. The questionnaire evaluates 8 different aspects that are synthesized in two summative measures: the physical component summary (PCS) and the mental component summary [24].

Personality disorders: The Spanish version of the Zuckerman-Kuhlman Personality Questionnaire (ZKPQ) was used to ascertain the fundamental dimension of the patient's personality. The ZKPQ is a widely recognized scale used in multiple pathologies, and it comprises 99 items across 5 scales, namely Neuroticism-Anxiety, Activity, Sociability, Impulsiveness and Sensation Seeking, as well as Aggressiveness and Hostility [25].

Dependent Variables

The Control Preference Scale (CPS): It was used to assess the patient's preference and perception regarding their involvement in the decision-making process related to treatment [26]. Comprises two items, each with five response options ranging from a completely active role (where the patient makes the decision) to a completely passive one (where the doctor decides without the patient's participation), with a midpoint for Shared Decision-Making. For analysis purposes, the scores were condensed into three categories: active (considering or not considering the doctor's opinion), shared, and passive (considering or not considering patient's opinion). The matching between preference and perception was calculated from these three categories and had three levels: matched preference, more involvement than desired, and less involvement than desired.

Shared Decision-Making Questionnaire (SDM-Q-9): a self-reported, 9-item scale that measured patients' perceived level of the doctor's promotion of Shared Decision-Making (SDM) during consultations. The scale is unifactorial and the items are answered using a Likert scale that ranges from 0 (completely disagree) to 5 (completely agree). The total score obtained is converted to a 0–100 scale, with higher scores indicating greater levels of SDM [27].

Patient Activation Measure (mental health version, PAM-13): is a self-report questionnaire designed to evaluate patients' perceived level of knowledge, skills, confidence, and involvement in the management of chronic diseases. The PAM comprises 13 items, each to be answered on a Likert scale ranging from 1 (totally disagree) to 4 (to-

tally agree). The total score obtained is then transformed into a 0–100 scale using calibration tables that are provided under license. Higher scores indicate a greater degree of activation. The PAM-13 was originally developed by Green *et al*. [28].

Statistical Analysis

Descriptive statistics (means, standard deviations and percentages) were calculated for all the variables. Logistic multinomial regression was used to analyze the correlates of the CPS variables (role preference, role perception and matching between preference and perception). For the Shared Decision-Making Questionnaire (SDM-9-Q) and PAM, multilevel linear regression was used, including the doctor as a random effect in order to control for clustering effects. In all cases, univariate analyses were carried out for each independent variable, and those with significant results ($p < 0.05$) were included in a multivariate model. In the model for the PAM, the SDM-9-Q and the CPS were also included as independent variables, and were included in the multivariate model if they obtained *p*-values under 0.10 in univariate analyses.

Results

Between March 2019 and June 2021, a total of 214 patients were enrolled in the study by 10 mental health professionals, with a median of 16 patients per professional and a range of 10 to 62. Table 1 displays the sociodemographic characteristics of the sample. The mean age of the participants was 44 years old, with two-thirds being male and 56.8% having only primary or no formal education. At the start of the study, 71.5% of the participants were actively using substances, and 37.4% were new patients. Of those being treated for substance use, 49.1% had alcohol use disorder, 28.5% had cocaine use disorder, and 7.9% had opioid use disorder, while other drug use disorders were less than 6%. Since the definition of polydrug addiction varies depending on the classification, the severity of acute consumption was taken into account. In this context, patients with main consumption of more than one illegal substance, including alcohol in large quantities, were classified as such (European Monitoring Centre for Drugs and Drug Addiction, 2002). Approximately half of the sample had an Axis-I mental disorder diagnosis; the most frequent were depressive (32.2%) and anxiety disorder (15.7%), and nearly one-third had a personality disorder diagnosis.

Missing data was observed in the sample, ranging from 0 to 4.7% across all variables, except for the Patient Activation Measure (PAM), which had a missing data rate

of 11.2% (Appendix Table 4). No significant associations were found between any of the included variables and having a missing score in the PAM (Appendix Table 5).

Table 1. Sample characteristics (n = 214).

Sociodemographic	N (%)*
Age, mean (sd)	43.98 (11.6)
Women	72 (33.6%)
Education (n = 213)	
No studies	25 (11.7%)
Primary	96 (45.1%)
Secondary	65 (30.5%)
University	27 (12.7%)
Marital status (n = 213)	
Single	84 (39.4%)
Married/coupled	86 (40.4%)
Separated/divorced	39 (18.3%)
Widow	1 (0.5%)
Others	3 (1.4%)
Clinical	
New patient	80 (37.4%)
Substance use at baseline	153 (71.5%)
Under treatment for	
Alcohol	105 (49.1%)
Cocaine	61 (28.5%)
Opioid	17 (7.9%)
Cannabis	9 (4.2%)
Benzodiazepine	6 (2.8%)
Amphetamine	4 (1.9%)
Analgesic	1 (0.5%)
Polydrug	11 (5.1%)
Current or past dependence	
Alcohol	124 (57.9%)
Cocaine	98 (45.8%)
Opioid	28 (13.1%)
Cannabis (n = 212)	54 (25.5%)
Benzodiazepine	18 (8.4%)
Polydrug (n = 212)	44 (20.1%)
Psychiatric comorbidities	
Depressive disorder (n = 211)	68 (32.2%)
Bipolar disorder (n = 210)	8 (3.8%)
Anxiety (n = 210)	33 (15.7%)
Adaptive disorder (n = 210)	13 (6.2%)
Psychotic disorder (n = 213)	9 (4.2%)
Eating disorder (n = 212)	4 (1.9%)
Personality disorder (n = 205)	63 (30.7%)

* Except for age (mean, sd).

Control Preferences Scale

Preferred Role

Most patients showed a preference for a shared (46.9%) or passive (38.7%) role. At the univariate level, a preference for an active role, compared to a shared one, was significantly associated with higher education level (Relative Risk Ratio (RRR) = 2.58, 95% Confidence interval (CI): 1.12, 5.94), main substance other than alcohol (RRR = 0.39, 95% CI: 0.17, 0.89), not having a mood (RRR = 0.37, 95% CI: 0.14, 0.98) or depressive disorder (RRR = 0.33, 95% CI: 0.12, 0.95), a lower score on neuroticism (RRR = 0.90, 95% CI: 0.83, 0.97) and a better health-related physical quality of life (RRR = 1.08, 95% CI: 1.02, 1.13). There were no significant differences between shared and passive preferences.

In the multivariate model (not including mood disorder to avoid collinearity with depressive disorder), only the education and quality of life differences remained significant (Table 2).

Perceived Role

Half of the patients (50.1%) perceived that they played a passive role in treatment decisions, whereas a shared approach was perceived by 38.1%. The perception of having played an active role, compared to a shared one, was related to not having a depressive (RRR = 0.27, 95% CI: 0.07, 0.95) or mood disorder (RRR = 0.22, 95% CI: 0.07, 0.78), and a lower score on neuroticism (RRR = 0.89, 95% CI: 0.82, 0.97). In a multivariate model including the two latter variables, both remained significant (Table 2).

At the univariate level, patients who perceived a passive role also had significantly lower scores on neuroticism than patients who perceived a shared role (RRR = 0.94, 95% CI: 0.89, 0.99), but in the multivariate model the result did not reach significance ($p = 0.063$).

Role Matching

Two-thirds (66.5%) of the patients showed concordance between their preferred and perceived roles, whereas 23% perceived less control than they wanted, and 10.5% were given more participation than desired.

In univariate analyses, perceiving more involvement than desired, compared to patients with matched preferences, was associated with worse scores in the Addiction Severity Index (ASI) subscale "Drug Problems" (RRR =

Table 2. Results of multiple logistic multinomial regression on the CPS, including variables with significant univariate associations (described in the main text).

	RRR (95% CI) *p*-value	RRR (95% CI) *p*-value
Role preference (n = 201)[a]	**Active**	**Passive**
Secondary/university studies	3.16 (1.28, 7.79)	1.53 (0.81, 2.89)
	0.012	0.189
Alcohol	0.45 (0.18, 1.13)	0.84 (0.44, 1.58)
	0.088	0.582
Depressive disorder	0.50 (0.16, 1.55)	0.86 (0.44, 1.69)
	0.230	0.668
Neuroticism/anxiety	0.93 (0.85, 1.02)	1.07 (1.00, 1.14)
	0.118	0.050
SF-36 physical	1.06 (1.00, 1.11)	1.03 (0.99, 1.06)
	0.035	0.117
Role perception (n = 207)[a]	**Active**	**Passive**
Mood disorder	0.23 (0.06, 0.84)	1.00 (0.54, 1.83)
	0.026	0.996
Neuroticism/anxiety	0.90 (0.83, 0.99)	0.95 (0.89, 1.00)
	0.024	0.063
Role matching (n = 204)[b]	**More than desire**	**Less than desired**
ASI drug use	1.12 (0.95, 1.32)	0.97 (0.88, 1.08)
	0.177	0.614
Polydrug	2.04 (0.73, 5.69)	0.68 (0.25, 1.87)
	0.175	0.453
Impulsivity	1.10 (0.99, 1.23)	1.01 (0.94, 1.09)
	0.084	0.712

Significant *p*-values are shown in bold.

[a] The reference is "shared".

[b] The reference is "matched preference".

ASI, Addiction Severity Index; CI, Confidence interval; CPS, Control Preferences Scale; RRR, Relative Risk Ratio; SF-36, 36-Item Short Form Health Survey.

0.1.17, 95% CI: 1.01, 1.36), a higher likelihood of polydrug use (RRR = 2.72, 95% CI: 1.06, 7.00), and higher impulsivity (RRR = 1.12, 95% CI: 1.00, 1.24). Coefficients comparing matched preferences with lower perceived involvement than desired were not significant. In the multivariate model, none of the variables remained significant.

Shared Decision-Making

The mean score on the SDM-9-Q was 69.0 (sd = 21.6). Univariate significant correlates of perceived SDM were not being a new patient (B = –6.25, 95% CI: –11.2, –1.28), greater severity of alcohol use according to ASI scores (B = 1.14, 95% CI: 0.61, 1.68), lower scores in ASI legal issues (B = –1.37, 95% CI: –2.51, –0.23), not presenting polydrug use (B = –6.81, 95% CI: –10.5, –3.07), and main substance use different than opioids (B = –7.62, 95% CI: –12.8, –2.46) or sedatives (B = –7.90, 95% CI: –12.2, –3.58) (Table 3).

In the multivariate analysis, however, only not being a new patient was significantly related to perceived SDM (B = –6.69, 95% CI: –10.9, –2.49), whereas the estimate for alcohol use felt slightly above the significance level (*p* = 0.053) (Table 3).

Activation

The mean score on the PAM was 56.8 (sd = 14.4), indicating moderate levels of activation. In the univariate analysis, higher scores on activity, one of the components of the extraversion dimension of the ZKPQ scale, were significantly associated with higher scores on the PAM (B = 0.66, 95% CI: 0.11, 1.20). The preference for an active role, compared to a shared one, was also related to a higher degree of activation (B = 5.33, 95% CI: 1.86, 8.79). The perceived role, measured by CPS, did not obtain a significant result, but scores on the SDM-Q-9 did it significantly related to ac-

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Table 3. Results of multilevel linear regressions on PAM and SDM-9-Q.

| | | PAM | | | | | SDM-9-Q | | | |
| | | Univariate | | Multivariate (n = 184) | | | Univariate | | Multivariate (n = 201) | |
Sociodemographic	N	Beta	p	Beta	p	N	Beta	p	Beta	p
Age	190	0.08 (–0.25, 0.41)	0.634			211	0.03 (–0.16, 0.22)	0.753		
Woman	190	–0.48 (–6.73, 5–76)	0.879			211	–3.65 (–8.81, 1.51)	0.166		
Secondary/university studies	189	–0.32 (–3.06, 2.42)	0.820			210	–3.69 (–11.0, 3.65)	0.324		
Married/couple	190	2.00 (–2.98, 6.98)	0.432			210	–3.60 (–7.36, 0.16)	0.061		
Job status active	190	–0.31 (–4.65, 4.02)	0.887			211	–0.79 (–6.50, 8.08)	0.832		
Clinical										
Substance use at baseline	190	–0.03 (–6.34, 6.29)	0.994			211	–0.87 (–4.80, 3.05)	0.633		
New patient	190	–0.22 (–5.40, 4.96)	0.934			211	–6.25 (–11.2, –1.28)	**0.014**	–6.69 (–10.9, –2.49)	**0.002**
ASI medical status	188	–0.36 (–1.17, 0.45)	0.382			209	–0.52 (–1.58, 0.54)	0.333		
ASI Employment and support	188	–0.19 (–0.81, 0.44)	0.555			209	–0.05 (–1.07, 0.97)	0.919		
ASI Alcohol use	187	0.69 (–0.05, 1.44)	0.069			208	1.14 (0.61, 1.68)	**<0.001**	1.03 (–0.01, 2.07)	0.053
ASI Drug use	187	–0.12 (–0.68, 0.45)	0.682			208	–0.61 (–1.68, 0.45)	0.257		
ASI Legal status	187	0.12 (–0.28, 0.52)	0.560			208	–1.37 (–2.51, –0.23)	**0.019**	–0.96 (–2.12, 0.19)	0.103
ASI Family status	188	–0.07 (–0.48, 0.34)	0.737			209	–0.59 (–1.59, 0.41)	0.246		
ASI Psychiatric status	188	–0.13 (–0.57, 0.31)	0.561			209	0.24 (–0.76, 1.25)	0.637		
Current or past dependence										
Alcohol	190	2.32 (–2.31, 6.94)	0.326			211	–0.60 (–5.84, 4.65)	0.823		
Cocaine	190	0.62 (–3.47, 4.70)	0.768			211	–1.24 (–7.14, 4.65)	0.679		
Cannabis	188	–2.08 (–5.58, 1.42)	0.243			209	–2.03 (–8.17, 4.11)	0.518		
Opioids	190	–4.86 (–10.5, 0.78)	0.091			211	–7.62 (–12.8, –2.46)	**0.004**	–3.24 (–9.85, 3.36)	0.336
Sedative substance	190	–4.84 (–10.3, 0.63)	0.083			211	–7.90 (–12.2, –3.58)	**<0.001**	–2.21 (–11.6, 7.21)	0.646
Polydrug	188	–2.33 (–6.47, 1.81)	0.270			209	–6.81 (–10.5, –3.07)	**<0.001**	–3.94 (–8.93, 1.06)	0.122
Psychiatric disorders										
Mood disorders	184	0.90 (–3.04, 4.83)	0.655			205	–2.88 (–8.59, 2.83)	0.323		
Depressive disorder	187	–0.03 (–3.92, 3.86)	0.989			208	–2.13 (–7.52, 3.26)	0.439		
Anxiety disorder	186	–2.73 (–9.07, 3.61)	0.399			207	3.71 (–3.25, 10.7)	0.296		
Personality disorder	181	2.73 (–0.15, 5.60)	0.063			202	3.14 (–2.26, 8.54)	0.255		
Personality traits										
Impulsivity	190	0.34 (–0.48, 1.16)	0.414			211	–0.74 (–1.49, 0.01)	0.053		
Neuroticism/anxiety	190	–0.20 (–0.58, 0.17)	0.286			211	–0.41 (–0.95, 0.12)	0.132		
Aggressiveness/hostility	190	–0.03 (–0.64, 0.58)	0.920			211	–0.06 (–1.02, 0.89)	0.894		
Activity	190	0.66 (0.11, 1.20)	**0.019**	0.50 (–0.24, 1.24)	0.188	211	0.03 (–0.46, 0.52)	0.903		
Sociability	190	0.23 (–0.25, 0.72)	0.344			211	–0.02 (–0.69, 0.66)	0.959		

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Table 3. Continued.

Sociodemographic	N	PAM Univariate Beta	p	PAM Multivariate (n = 184) Beta	p	N	SDM-9-Q Univariate Beta	p	SDM-9-Q Multivariate (n = 201) Beta	p
Health-related quality of life										
SF-36 physical dimension	186	0.14 (–0.09, 0.36)	0.227			207	0.12 (–0.15, 0.40)	0.382		
SF-36 mental dimension	186	0.07 (–0.13, 0.28)	0.492			207	0.15 (–0.23, 0.52)	0.444		
CPS										
Preferred role (ref: shared)	185					206				
Active		5.33 (1.86, 8.79)	**0.003**	4.77 (1.48, 8.07)	**0.005**		3.42 (–5.24, 12.1)	0.439		
Passive		3.07 (–0.80, 6.94)	0.120	3.05 (–1.45, 7.55)	0.184		–0.68 (–6.30, 4.94)	0.812		
Perceived role (ref: shared)	186					207				
Active		1.84 (–2.73, 6.42)	0.429				–0.09 (–6.02, 6.20)	0.978		
Passive		2.16 (–1.78, 6.17)	0.279				–1.18 (–6.59, 4.23)	0.669		
Rol matching (ref: matched)	185					206				
Less than desired		–2.98 (–7.54, 7.59)	0.201	–2.16 (–7.15, 2.83)	0.396		–3.95 (–8.33, 0.43)	0.077	–3.62 (–9.55, 2.31)	0.231
More than desired		–3.50 (–13.8, 0.75)	0.079	–4.75 (–12.4, 2.88)	0.222		–9.13 (–22.8, 4.50)	0.189	–6.67 (–21.0, 7.68)	0.362
SDM-Q-9	189	0.14 (0.04, 0.24)	**0.004**	0.14 (0.06, 0.22)	**0.001**					

NOTE: values are unstandardized beta coefficients (95% confidence interval) from multilevel models, including the doctor as a random effect. Significant *p*-values are shown in bold.

CPS, Control Preferences Scale; SDM-9-Q, Shared Decision-Making Questionnaire; PAM, Patient Activation Measure.

Table 4. Missed values at baseline.

Variables	Missed, n (%)
Age; Sex; Laboral status; Substance Use; New patient; Past/Present Dependence; Personality Traits	0 (0%)
Studies; Marital status	1 (0.46%)
ASI medical status; ASI Employment and support; ASI Family status; ASI Psychiatric status	2 (0.93%)
ASI Alcohol use; ASI Drug use; ASI Legal status; Depressive disorder; SDM-9	3 (1.40%)
Anxiety disorder; SF-36; Perceived CPS rol	4 (1.87%)
CPS preferred role; Role concordance	5 (2.34%)
Mood disorders	6 (2.80%)
Any Axis I diagnosis	7 (3.27%)
Personality disorder	9 (4.21%)
Any psychiatric disorder	10 (4.67%)
Patient Activation Measure (PAM)	24 (11.2%)

tivation (B = 0.14, 95% CI: 0.04, 0.24) (Table 3). Regarding role matching, patients who perceived more involvement than desire obtained lower activation scores than those with matched preferences, but the difference was significant only at the 90% confidence level. In the multivariate analysis, only the preferred role and the SDM-9-Q maintained significance (Table 3).

Discussion

In this sample, 46.9% of the patients preferred a shared role in decision-making, whereas 38.7% preferred a passive role. However, these two groups were not significantly different in any of the assessed correlates. On the contrary, the 14.4% of patients who preferred an active role presented significant differences compared to the "shared" group, suggesting a less problematic profile (more educated, lower likelihood of depression, lower alcohol use, lower neuroticism, better quality of life), although there were no significant differences in addiction severity, assessed by the ASI [29]. The results on role perception, also assessed by the CPS, were in the same direction but only for the presence of a mood disorder and the level of neuroticism. These patients tended to perceive a shared approach instead of an active one. These results could be interpreted as a consequence of the decrease in some abilities or the lack of confidence felt by patients with affective and anxiety disorders, which could lead to a fear of assuming too much responsibility or making the wrong choice. This hypothesis could also justify the results obtained among those more impulsive or polydrug patients who report receiving more participation than they would like. These findings are similar to those found in chronic medical conditions such as hypertension, minor traumas, or mental illnesses such as schizophrenia or depression where patients wanted to be involved but collaboratively with the doctor [16,30]. This is an aspect of interest that should be confirmed in future studies since although patients do not seem to feel ready to assume a more active role, many do not want to stop being involved in the process in some way.

Regarding the perception of SDM in consultation, it is not surprising that it was lower in new patients, since they had experienced fewer interactions with the doctor. In univariate analyses, patients in whom alcohol consumption was more severe, reported feeling more involved in the SDM process, while those patients with SUD to opioids, sedatives, or polydrug addiction perceived a lower degree of participation in their treatment compared to those addicted to other substances. The patient profile who perceives significantly higher participation would be the alcohol consumer, linked to the unit for a long time and with no legal history. The rest of the variables analyzed did not show significant differences in the perception of participation. This profile could be considered a less seriously ill patient. In Europe, the consumption of alcohol is legal and is part of the culture of the countries. It is common that in some cases this type of patient is separated from the rest and they are treated in specific alcoholism centers. For this reason, reports and studies often separate this profile of patients from other addictions. A larger study of these population subtypes would be interesting since it could guide the needs for different approaches [31].

Studies carried out on patients with medical pathologies show results similar to those of our study. In a recent systematic review of the global use of the SDM-9-Q, the perceptions of average participation ranged between 42 and 75 [32].

Patients with mood disorders, specifically those with depression, with more neurotic and anxious traits, preferred shared or passive participation over having an active role in the process, and the perception of what was happening in the encounter coincided. In relation to activation degree,

Table 5. Predictors of missed values in the PAM.

	Univariate	
Sociodemographic	OR	*p*
Age	0.98 (0.93, 1.03)	0.450
Woman	0.55 (0.30, 1.02)	0.058
Secondary/university studies	0.21 (0.04, 1.04)	0.056
Married/couple	0.59 (0.21, 1.61)	0.301
Job status active	1.19 (0.61, 2.31)	0.606
Clinical		
Substance use at baseline	0.99 (0.24, 4.06)	0.985
New patient	0.65 (0.18, 2.37)	0.514
ASI Medical status	0.94 (0.84, 1.06)	0.347
ASI Employment and support	0.94 (0.86, 1.02)	0.134
ASI Alcohol use	0.88 (0.76, 1.02)	0.084
ASI Drug use	0.98 (0.85, 1.14)	0.840
ASI Legal status	0.95 (0.80, 1.14)	0.613
ASI Family status	0.95 (0.80, 1.12)	0.505
ASI Psychiatric status	1.00 (0.89, 1.13)	0.947
Current or past dependence		
Alcohol	1.46 (0.53, 4.01)	0.463
Cocaine	1.18 (0.66, 2.11)	0.579
Cannabis	1.79 (0.64, 5.06)	0.270
Opioids	0.74 (0.21, 2.59)	0.638
Sedative substance	2.27 (0.29, 17.5)	0.433
Polydrug	1.94 (0.53, 7.04)	0.316
Psychiatric disorders		
Mood disorders	1.74 (0.58, 5.19)	0.324
Depressive disorder	1.48 (0.52, 4.15)	0.460
Anxiety disorder	4.74 (0.62, 36.2)	0.164
Any Axis I diagnosis	1.39 (0.63, 3.06)	0.421
Personality disorder	1.04 (0.36, 2.97)	0.947
Any psychiatric disorder	1.31 (0.58, 2.94)	0.515
Personality traits		
Impulsivity	1.09 (0.99, 1.19)	0.074
Neuroticism/anxiety	1.08 (0.98, 1.20)	0.119
Aggressiveness/hostility	1.01 (0.85, 1.19)	0.933
Activity	0.94 (0.85, 1.05)	0.290
Sociability	0.95 (0.84, 1.06)	0.333
Health-related quality of life		
SF-36 Physical dimension (basal)	0.98 (0.95, 1.02)	0.419
SF-36 Mental dimension(basal)	0.99 (0.96, 1.03)	0.700
CPS		
Preferred role (ref: shared)		
Active	1.20 (0.39, 3.72)	0.751
Passive	1.11 (0.44, 1.81)	0.826
Perceived role (ref: shared)		
Active	0.57 (0.11, 3.00)	0.511
Passive	0.50 (0.18, 1.41)	0.191

Table 5. Continued.

	Univariate	
Sociodemographic	OR	*p*
Role matching (ref: matched)		
Less than desired	0.42 (0.13, 1.32)	0.136
More than desired	0.61 (0.16, 2.25)	0.455
SDM-Q-9	1.01 (0.99, 1.02)	0.314

dividuals with a greater need for general activity, difficulty relaxing and doing nothing when the opportunity arises, or people with a preference for hard and challenging work, a busy, active life, and a high energy level. A positive correlation was obtained between patients who were more active according to the PAM and those who preferred to have an active role according to the CPS and also tended to perceive that they did so (Pearson r = 0.22, *p* = 0.003). This reinforces the results of previous studies in which it has been pointed out that patients with a higher degree of activation consider that they have important roles to play in self-management of their own care and show greater confidence to collaborate with healthcare providers, although until now it had not been studied in patients with SUD [14,33]. It could be interpreted that the most activated patients are those with personality traits that predispose to this type of attitude towards the disease and therefore prefer greater participation in the decision-making process regarding their health. Despite not being able to establish causal relationships, the association obtained should be studied in the future to determine possible fields of action with the patient.

Preferring an active role in decision-making was associated with higher physical quality of life. Higher quality-of-life scores were also obtained in more active patients, although the differences were not significant. These results coincide with those obtained in other studies where a greater activation in patients has been related to a more outstanding commitment to prevention habits, self-care, and a better quality of life [14,15]. In the same direction, other studies have indicated in chronic diseases patients that less activation was related to depressive symptoms and worse quality of life [34], which coincides with the results obtained in our study, although in our case the lower activation in depressed patients did not become significant.

When interpreting the results of this study, some limitations must be taken into account. The study was carried out in only one outpatient unit, and the generalizability of the results is uncertain. Regarding internal validity, the study was exploratory including a high number of variables and therefore analyses were not adjusted for multiple comparisons. However, the significant results obtained have a theoretical sense, although confirmation in larger samples

a higher degree of activation was obtained in the PAM in those patients with higher scores in activity according to the ZKPQ, which could be expected. This category includes in-

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is required. The relatively small sample size also precluded the analyses of interactions with specific variables like the presence of a mental disorder. Despite the indicated limitations, the study provides relevant information about patients' psychological variables relevant for SUD treatment, which has been rarely studied in Spain and worldwide.

Conclusions

It can be concluded that patients with substance use want to participate in their therapeutic process, although most prefer to share the responsibility with the professional. Those patients with depressive disorders prefer to avoid an active role but still want to be involved. A higher degree of activation in patients is related to preferring an active role and they tend to feel more involved in the process. An association is observed between preferring an active role and higher quality of life.

The few studies published on this type of patient have provided inconclusive results; although they coincide in indicating a desire for greater participation, on occasions, to choose the treatment option together with the clinician [18,19]; or simply receiving more information [20].

Availability of Data and Materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Author Contributions

PSP: Conceptualization, Methodology, Resources, Investigation, Writing–Original Draft, Visualization. ARS: Data curation, Writing–Original draft preparation, Software, Data Curation. CDB: Data curation, Writing–Reviewing and Editing, Resources, Validation. FPÁ: Data curation, Writing–Reviewing and Editing. Resources. INF: Data curation, Writing–Reviewing and Editing. JARQ: Data curation, Writing–Reviewing and Editing, Supervision. LGL: Data curation, Writing–Reviewing and Editing, Supervision, Project administration. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

Ethics Approval and Consent to Participate

This study was approved by the Vall d'Hebron Hospital Ethics Committee (code: PR(SC)19/2010), and it was carried out following the principles of the Helsinki Declaration. Those who accepted and signed the informed consent received the different self-administered questionnaires.

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Conflict of Interest

Dr. Serrano-Pérez has received fees as a speaker for Angelini, Casen Recordati and Lundbeck. Dr. Palma-Álvarez has received fees as a speaker for Angelini, Casen Recordati, Exeltis, Lundbeck, MSD, Mundipharma, and Takeda. Dr. Ramos-Quiroga has received fees as a speaker from Janssen-Cilag, Shire, Lilly, Ferrer, Medice, and Rubió. He has received research funding from JanssenCilag, Lilly, Ferrer, Lundbeck, and Rubió. Dr. Grau-López has received fees to give talks for Janssen-Cilag, Lundbeck, Servier, Otsuka, and Pfizer. The rest of the authors have no interests to declare.

Appendix

See Tables 4,5.

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