

## Early maladaptive schemas and schematic modes in chemically dependent women with borderline personality disorder\*

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**Objective:** Schema Therapy is an integrative and structured approach initially developed for the treatment of personality disorders in chronically-ill patients. The main objective of this study was to investigate the associations of Early Maladaptive Schemas and Schematic Modes in chemical dependent women with comorbid borderline personality disorder.

**Methodology:** this is a cross-sectional, documentary and descriptive research. The following evaluation instruments were used: Sociodemographic data sheet; Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders V; Structured Clinical Interview for the disorders of the Statistical Manual of Mental Disorder IV; Young's Schema Questionnaire; and Schema Mode Inventory. The general sample was characterized by 35 women, aged between 18 and 62 years old, which originated a subgroup of 17 participants who met the criteria for Borderline Personality Disorder, according to DSM V. **Results:** in the association of Early Maladaptive Schemas, a significance p-value of 0.190 was found in Abandonment, a significance p-value of 0.042 in Defectiveness/Shame and a significance p-value of 0.037 in Dependence/Incompetence, which shows that the mean values presented a significant difference. **Conclusion:** regarding the associations between the Schematic Modes, there was no significant difference across the groups.

**Descriptors:** Schema Therapy; Psychotherapy; Substance-Related Disorders; Borderline Personality Disorder; Cognitive Behavioral Therapy.

\* Supported by Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Grant #433343/2018-4, Brazil.

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### How to cite this article

Sberse LB, Ávila AC, Carvalho CDP, Rospide EB, Alexandre BS, Oliveira MS. Early maladaptive schemas and schematic modes in chemically dependent women with borderline personality disorder. *SMAD, Rev Eletrônica Saúde Mental Álcool Drog.* 2023;19:e-199028 [cited \_\_\_\_-\_\_\_\_-\_\_\_\_]. Available from: \_\_\_\_ <https://doi.org/10.11606/issn.1806-6976.smad.2023.199028>

## Esquemas iniciais desadaptativos e modos esquemáticos em mulheres dependentes químicas com Transtorno de Personalidade *Borderline*

**Objetivo:** a Terapia do Esquema é uma abordagem integrativa e estruturada desenvolvida inicialmente para o tratamento de transtornos de personalidade em pacientes crônicos. O presente estudo teve como objetivo principal averiguar as associações de Esquemas Iniciais Desadaptativos e Modos Esquemáticos em mulheres, dependentes químicas, com o transtorno de personalidade *Borderline* em comorbidade. **Metodologia:** trata-se de uma pesquisa com delineamento transversal, quantitativo e descritivo. Foram utilizados os seguintes instrumentos de avaliação: ficha de dados sociodemográficos; entrevista clínica estruturada para os transtornos do Manual Estatístico de Transtornos Mentais – IV e V; *Young Schema Questionnaire*; e o *Schema Mode Inventory*. A amostra geral caracterizou-se por 35 mulheres, com idades entre 18 e 62 anos, que deram origem a um subgrupo de 17 participantes que preencheram os critérios para o Transtorno de Personalidade *Borderline*, de acordo com o DSM V. **Resultados:** na associação dos Esquemas Iniciais Desadaptativos, foram encontrados, uma significância  $p' 0,190$  em Abandono, uma significância  $p' 0,042$  em Defectividade/Vergonha e uma significância  $p' 0,037$  em Dependência/Incompetência, o que mostra que as médias, apresentaram diferença significativa. **Conclusão:** em relação às associações entre os Modos Esquemáticos, não houve diferença significativa entre os grupos.

**Descritores:** Terapia do Esquema; Psicoterapia; Transtornos Relacionados ao Uso de Substâncias; Transtorno da Personalidade *Borderline*; Terapia Cognitivo-Comportamental.

## Esquemas iniciales desadaptativos y modos esquemáticos en mujeres con dependencia química y Trastorno Límite de la Personalidad

**Objetivo:** la terapia de Esquemas es un enfoque integrador y estructurado desarrollado inicialmente para el tratamiento de los trastornos de personalidad en pacientes con enfermedades crónicas. El objetivo principal del presente estudio fue investigar las asociaciones de Esquemas Desadaptativos Iniciales y Modos de Esquema en mujeres, químicamente dependientes, con Trastorno Límite de la Personalidad como enfermedad asociada. **Metodología:** se trata de una investigación transversal, cuantitativa y descriptiva. Se utilizaron los siguientes instrumentos de evaluación: ficha de datos sociodemográficos; entrevista clínica estructurada para los trastornos del Manual de Diagnóstico y Estadístico de los Trastornos Mentales V; Entrevista Clínica Estructurada para Trastornos de la Personalidad IV; Cuestionario de Esquemas de Young; e Inventario de Modos de Esquema. La muestra general estuvo caracterizada por 35 mujeres, entre 18 y 62 años, que dieron origen a un subgrupo de 17 mujeres que cumplían con los criterios del trastorno límite de la personalidad. **Resultados:** en la asociación de esquemas desadaptativos iniciales se encontró una significancia  $p' 0,190$  en abandono, una significancia  $p' 0,042$  en defectividad/vergüenza y una significancia  $p' 0,037$  en dependencia/incompetencia, lo que demuestra que los promedios presentaron diferencia significativa. **Conclusión:** en cuanto a las asociaciones entre los Modos Esquemáticos, no hubo diferencia significativa entre los grupos.

**Descriptorios:** Terapia de Esquemas; Psicoterapia; Trastornos Relacionados con Sustancias; Trastorno Límite de la Personalidad; Terapia Cognitivo-Conductual.

## Introduction

Schema Therapy (ST) is understood as an approach that was initially focused on treating mental disorders in chronic patients<sup>(1)</sup>. ST encompasses concepts such as Early Maladaptive Schemas (EMDs); are 18 broad and diffuse patterns of memories, emotions and sensations that originate mainly in childhood experiences, which tend to become rigid in adulthood, and are divided into five domains<sup>(1)</sup>.

The first domain, called Disconnection and Rejection, is related to abandonment, distrust, emotional deprivation, shame and isolation schemas. The second domain refers to Impaired Autonomy and Performance, which is related to dependence, vulnerability, enmeshment and failure schemas. The third domain is Impaired Limits, where they are presented linked to the merit and grandiosity, self-control and insufficient self-discipline schemes. The fourth domain, Other-Orientation, is characterized by subjugation and self-sacrifice schemas. Finally, the fifth domain is that of Excessive Vigilance and Inhibition, defined by negativism and pessimism schemas, emotional inhibition, inflexible standards and punitive character<sup>(1)</sup>.

One way to understand a composition of EMSs is through the characterization of Schematic Modes (SM), which are patterns of emotional states and coping responses activated, depending on the moment and events experienced<sup>(1-2)</sup>.

The rates of severe and persistent Mental Disorders, such as Borderline Personality Disorder (BPD) and Substance Use Disorder (SUD), are considered to be severely disabling and, therefore, there is a need to think about actions for mental health promotion, prevention and recovery, as they can be considered one of the main health problems in the country<sup>(3)</sup>.

Chemical dependence, called Substance Use Disorder in DSM-5, is characterized in general terms by a problematic use pattern of alcohol and/or other psychoactive substances, leading to clinically significant impairment or distress<sup>(4)</sup>.

According to DSM-5, Borderline Personality Disorder is related to a diffuse pattern of instability in different aspects of the individual's life and that appears in early adulthood<sup>(4)</sup>. The mean prevalence is estimated at 1.6% in the population and can reach 5.9%. As for the course of BPD, the most common pattern is chronic instability in early adulthood, with presence of severe episodes of affective and impulsive uncontrollability, more impairments and risk of suicide among young adults<sup>(4)</sup>.

In this sense, the objective of this research was to investigate the associations of Early Maladaptive Schemas and Schematic Modes in Chemically Dependent women with BPD in comorbidity.

## Methodology

### Design

This is a cross-sectional, quantitative and descriptive study<sup>(5)</sup> that sought to ascertain the associations of Early Maladaptive Schemas and Schematic Modes in Chemically Dependent women with BPD in comorbidity.

### Participants

The sample of the current study consisted of 35 women who had a diagnosis of SUD; which originated a subgroup of 17 participants, with BPD as a comorbidity, aged at least 18 years old and Complete Elementary Education as minimum schooling level.

### Selection criteria

Only women who were undergoing inpatient treatment for SUD were included in the clinical sample. In addition to that, the following inclusion criteria were considered: a) being at least 18 years of age; b) Complete Elementary School; and, c) with and without comorbid BPD. The participants who had difficulties in comprehension and/or understanding to answer the research protocol were excluded, for being under the effect of medication (appointed by the team at the treatment locus), with psychotic symptoms or if they had neurocognitive difficulties understanding the instruments used.

### Collection protocol instruments

The following instruments were used: a) Sociodemographic data sheet, b) Structured Clinical Interview for the DSM-V Disorders (SCID-5-CV), c) Structured Clinical Interview for the DSM-IV Personality Disorders (SCID-II), d) Young's Schema Questionnaire – Short version (YSQ-S3) and, e) Schematic Modes Inventory (SMI).

### Procedure for data collection

The participants who were willing to collaborate with the research duly signed the Free and Informed Consent Form (FCIF), both in the online and physical version; in addition to answering/completing the instruments for data collection individually. In addition, the research members who assisted in the filling-in process ensured that the participants received all the necessary information so that there were no doubts about their participation. The collections were carried out between July and November 2021.

### Data analysis

The data were processed in the IBM-SPSS (International Business Machines-Statistical Package

for the Social Sciences) software, version 24, using descriptive statistics to characterize the sample, evaluating the absolute and relative distributions for the categorical variables. After quantifying the data and recognizing the general characteristics of the sample, the mean values obtained from YSQ-S3 and SMI were examined. Comparisons of the 18 EMDs and 10 SMs were performed using Student's t test for independent samples. This test is based on normality distribution, so that the quantitative data generated from the analysis were tested regarding adherence to the Normal Distribution assumption<sup>(6)</sup>.

### Ethical aspects

This project is part of a larger study called "Diverse psychometric evidence of Schema Therapy questionnaires for use in Brazil"; therefore, it has been approved by the Research Ethics Committee of the Pontifical Catholic University of Rio Grande do Sul

(Pontifícia Universidade Católica do Rio Grande do Sul, PUCRS), with CAAE: 80925517.0.0000.5336 and approval opinion No.: 2,558,868. The study participants had access to the free and informed consent form before data collection; after reading it and been explained some excerpts, they signed it of their own free will, thus initiating the face-to-face data collection process.

### Results

The final sample consisted of n=35, all women with Substance Use Disorder. Two groups emerged from this sample, the first consisting of 18 women with SUD without BPD and the second, comprised by 17 women with SUD, with comorbid BTP.

According to the objectives proposed in this research and in the aforementioned sample, it was possible to observe the following results regarding the mean values of the EMDs (Table 1).

Table 1 - Mean values and standard deviation of Early Maladaptive Schemas in women with Substance Use Disorder (SUD) without Borderline disorder (n=18) and in women with SUD with Borderline disorder (n= 17). Porto Alegre, RS, Brazil, 2021

	Borderline Personality Disorder	Number	M <sup>±</sup> SD <sup>†</sup>	Mean standard error
Mean	Yes	17	2.34±1.06	0.25882
Emotional Deprivation	No	18	2.22±1.00	0.23702
Mean	Yes	17	4.37±0.95	0.23192
Abandonment	No	18	3.77±1.61	0.38019
Mean	Yes	17	3.62±1.15	0.28
Distrust/Abuse	No	18	3.40±1.33	0.31
Mean	Yes	17	2.8706±0.85	0.20
Isolation/Alienation	No	18	3.0444±1.36	0.32
Mean	Yes	17	2.42±1.19	0.29
Defectiveness/Shame	No	18	1.73±0.57	0.13
Mean	Yes	17	3.07±1.33	0.32
Failure	No	18	2.70±0.96	0.22
Mean	Yes	17	2.97±1.21	0.29
Dependence/Incompetence	No	18	2.18±0.91	0.21
Mean	Yes	17	3.70±1.26	0.30
Vulnerability to Damage/Disease	No	18	3.10±1.31	0.26
Mean	Yes	17	3.43±1.22	0.29
Enmeshment	No	18	3.31±1.68	0.39
Mean	Yes	17	3.37±1.27	0.30
Subjugation	No	18	3.53±1.27	0.30
Mean	Yes	17	4.30±0.98	0.23
Self-sacrifice	No	18	4.50±0.75	0.17
Mean	Yes	17	2.82±1.07	0.26
Emotional Inhibition	No	18	3.11±1.55	0.36
Mean	Yes	17	4.08±0.91	0.22
Inflexible Standards	No	18	4.08±0.93	0.22
Mean	Yes	17	3.64±0.94	0.22
Arrogance/Grandeur	No	18	3.37±1.13	0.26
Mean	Yes	17	3.72±1.22	0.29
Insufficient Self-control/ Self-discipline	No	18	3.47±1.29	0.30
Mean	Yes	17	3.88±1.34	0.32
Seeking Approval/ Recognition	No	18	3.86±1.20	0.28
Mean	Yes	17	3.65±0.98	0.23
Negativism/Pessimism	No	18	3.21±1.02	0.24
Mean	Yes	17	3.23±0.88	0.21
Punitive Stance	No	18	2.92±1.30	0.30

\*M = Mean; †SD = Standard Deviation

The EMD that appeared with the highest score occurred in the group of women with SUD without BPD: "Self-Sacrifice" with  $M=4.50$ , and with  $M=4.30$ , in the group of women with SUD and BPD. The second EMD observed was "Inflexible Standards", with very similar scores in both groups:  $M=4.0889$  for the group of users without BPD, and  $M=4.0824$  for the one of chemical dependents with BPD.

Finally, the "Abandonment" EMD appeared with higher intensity in the group of chemical dependents

with BPD:  $M=4.3765$ , when compared to  $M=3.7778$  in the group of users without BPD.

In relation to the comparison between the groups for the EMDs, we obtained the following significance values:  $p=0.190$  for "Abandonment", a significance  $p=0.042$  for "Defectiveness/Shame" and a significance  $p=0.037$  for "Dependence/Incompetence", which shows that the mean values in these EMDs presented important significant differences, which can be observed in Tables 2 and 3.

Table 2 - Test for independent samples of Early Maladaptive Schemas in women with Substance Use Disorder (SUD) without Borderline disorder ( $n=18$ ) and in women with SUD with Borderline disorder ( $n=17$ ). Porto Alegre, RS, Brazil, 2021

		Levene's test for equality of variance		t' test for equality of means				95% confidence interval of the difference		
		F†	Significance	t'	Degree of Freedom	Significance (Two-tailed)	Mean difference	Standard error of the difference	Decrease	Increase
Mean Emotional Deprivation	Assumed equal variance	0.177	0.677	0.910	33	0.369	0.31895	0.35034	-0.39382	1.03173
	Not assumed equal variance			0.909	32.546	0.370	0.31895	0.35096	-0.39545	1.03336
Mean Abandonment	Assumed equal variance	7.526	0.010	1.325	33	0.194	0.59869	0.45168	-0.32026	1.51765
	Not assumed equal variance			1.344	27.901	0.190	0.59869	0.44535	-0.31371	1.51109
Mean Distrust/Abuse	Assumed equal variance	0.767	0.387	0.529	33	0.601	0.22353	0.42286	-0.63680	1.08385
	Not assumed equal variance			0.531	32.800	0.599	0.22353	0.42117	-0.63354	1.08060
Mean Isolation/ Alienation	Assumed equal variance	3.352	0.076	-0.447	33	0.657	-0.17386	0.38856	-0.96439	0.61668
	Not assumed equal variance			-0.453	28.788	0.654	-0.17386	0.38361	-0.95867	0.61096
Mean Defectiveness/ Shame	Assumed equal variance	9.540	0.00	2.191	33	0.036	0.69020	0.31502	0.4929	1.33110
	Not assumed equal variance			2.151	22.777	0.042	0.69020	0.32084	0.02612	1.35427
Mean Failure	Assumed equal variance	1.479	0.233	0.942	33	0.353	0.37059	0.39342	-0.42982	1.17100
	Not assumed equal variance			0.933	29.032	0.358	0.37059	0.39707	-0.44147	1.18264
Mean Dependence/ Incompetence	Assumed equal variance	2.181	0.149	2.179	33	0.037	0.78758	0.36152	0.05206	1.52310
	Not assumed equal variance			2.161	29.653	0.039	0.78758	0.36451	0.04278	1.53237
Mean Vulnerability to Damage/ Disease	Assumed equal variance	0.138	0.713	1.494	33	0.145	0.60588	0.40562	-0.21937	1.43113
	Not assumed equal variance			1.489	32.064	0.146	0.60588	0.40697	-0.22302	1.43478

†t = Student's test for independent samples; †F = Statistics between two variances

Table 3 - Test for independent samples of Early Maladaptive Schemas in women with Substance Use Disorder (SUD) without Borderline disorder ( $n=18$ ) and in women with SUD with Borderline disorder ( $n=17$ ). Porto Alegre, RS, Brazil, 2021

		Levene's test for equality of variance		t' test for equality of means				95% confidence interval of the difference		
		F†	Significance	t'	Degree of Freedom	Significance (Two-tailed)	Mean difference	Standard error of the difference	Decrease	Increase
Mean Enmeshment	Assumed equal variance	2.823	0.102	0.248	33	0.805	0.12418	0.50024	-0.89355	1.14192
	Not assumed equal variance			0.250	31.076	0.804	0.12418	0.49576	-0.88683	1.13520

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		Levene's test for equality of variance		t' test for equality of means				95% confidence interval of the difference		
		F†	Significance	t'	Degree of Freedom	Significance (Two-tailed)	Mean difference	Standard error of the difference	Decrease	Increase
Mean Subjugation	Assumed equal variance	0.046	0.832	-0.364	33	0.718	-0.15686	0.43098	-1.03371	0.71998
	Not assumed equal variance			-0.364	32.907	0.718	-0.15686	0.43091	-1.03365	0.71993
Mean Self-sacrifice	Assumed equal variance	0.840	0.366	-0.654	33	0.517	-0.19412	0.29665	-0.79765	0.40942
	Not assumed equal variance			-0.649	30.021	0.521	-0.19412	0.29891	-0.80456	0.411632
Mean Emotional Inhibition	Assumed equal variance	3.779	0.060	-0.634	33	0.530	-0.28758	0.45362	-1.21048	0.63532
	Not assumed equal variance			-0.641	30.341	0.527	-0.28758	0.44895	-1.20404	0.62887
Mean Inflexible Standards	Assumed equal variance	0.049	0.826	-0.21	33	0.983	-0.0654	0.31343	-0.64421	0.63113
	Not assumed equal variance			-0.21	32.966	0.983	-0.0654	0.31318	-0.64373	0.63066
Mean Arrogance/Grandeur	Assumed equal variance	0.680	0.415	0.761	33	0.452	0.26928	0.35379	0.45052	0.98908
	Not assumed equal variance			0.765	32.552	0.450	0.26928	0.36197	-0.44719	0.98575
Mean Self-control/Self-discipline	Assumed equal variance	0.006	0.939	0.590	33	0.559	0.25163	0.42620	-0.61547	1.11873
	Not assumed equal variance			0.591	32.999	0.558	0.25163	0.42552	-0.61049	1.11736
Mean Seeking Approval/Recognition	Assumed equal variance	0.501	0.484	0.036	33	0.971	0.01569	0.43104	-0.86127	0.89264
	Not assumed equal variance			0.036	32.081	0.971	0.01569	0.43245	-0.86509	0.89647
Mean Negativism/Pessimism	Assumed equal variance	0.046	0.831	1.319	33	0.196	0.44771	0.33932	-0.24264	1.13806
	Not assumed equal variance			1.321	32.990	0.196	0.44771	0.33891	-0.24181	1.13723
Mean Punitive Stance	Assumed equal variance	3.456	0.072	0.827	33	0.414	0.31307	0.37876	-0.45752	1.08366
	Not assumed equal variance			0.836	30.089	0.410	0.31307	0.37470	-0.45207	1.07822

\*t = Student's test for independent samples; †F = Statistics between two variances

In relation to the results, in the "Abandonment" EMD, it can be seen that the  $p$ -value is 0.010. In this sense, the "t" test generated a  $p$ -value of 0.190, which indicates that there are no significant differences between the means. In the "Defectiveness and Shame" scheme,  $p$  was 0.004. In this sense, the "t" test generated a  $p$ -value of 0.042, which indicates that there are significant

differences between the means. Finally, regarding the "Dependence/Incompetence" EMD,  $p$  was 0.149. The "t" test generated a  $p$ -value of 0.037, which indicates that there are significant differences between the means.

From this, the following table presents the mean values found in the Modes of the sample in question (Table 4).

Table 4 - Mean values and standard deviation of Schematic Modes in women with Substance Use Disorder (SUD) without Borderline disorder (n=18) and in women with SUD with Borderline disorder (n=17). Porto Alegre, Brazil, 2021

	Borderline	Number	M <sup>±</sup> SD <sup>†</sup>	Mean standard error
Mean Vulnerable Child	Yes	17	2.74±1.29	0.31
	No	18	2.42±1.03	0.24
Mean Angry Child	Yes	17	2.38±0.88	0.21
	No	18	2.47±0.87	0.20
Mean Impulsive Child	Yes	17	3.13±1.11	0.27
	No	18	2.86±1.29	0.30
Mean Undisciplined Child	Yes	17	3.28±1.09	0.26
	No	18	2.87±1.12	0.30
Mean Self-aggrandizement	Yes	17	2.44±0.89	0.21
	No	18	2.32±0.80	0.18

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	Borderline	Number	M $\pm$ SD <sup>†</sup>	Mean standard error
Mean	Yes	17	2.07 $\pm$ 0.59	0.14
Intimidation and Attack	No	18	1.89 $\pm$ 0.46	0.10
Mean	Yes	17	2.37 $\pm$ 0.60	0.14
Punitive Parents	No	18	2.07 $\pm$ 0.47	0.11
Mean	Yes	17	4.10 $\pm$ 0.57	0.13
Demanding/Critical Parents	No	18	4.26 $\pm$ 0.89	0.21
Mean	Yes	17	4.40 $\pm$ 0.85	0.20
Healthy Adult	No	18	4.64 $\pm$ 0.79	0.18
Mean	Yes	17	3.71 $\pm$ 1.10	0.26
Happy Child	No	18	4.10 $\pm$ 1.04	0.24

\*M = Mean; <sup>†</sup>SD = Standard Deviation

According to the table above, it can be seen that the SM that appeared with the highest score was "Healthy Adult" and that, in the group of women with SUD and BPD, the mean was 4.4059. In the group of female substance users without BPD, the mean was 4.6444. Regarding the "Demanding/Critical Parents" mode score, the mean in the sample of substance users with BPD was 4.1000. In the sample of substance users

without BPD, there was an mean of 4.2667. The last mode with the highest score was "Happy Child", which presented a mean of 3.7118 for female substance users with BPD, and a mean of 4.1000 for the group of users without BPD.

In relation to the comparison between the groups for the Schematic Modes (SMs), they did not show significant differences between groups, as shown in Table 5.

Table 5 - t\* test for independent samples of Schematic Modes in women with Substance Use Disorder (SUD) without Borderline disorder (n=18) and in women with SUD with Borderline disorder (n=17). Porto Alegre, RS, Brazil, 2021

		Levene's test for equality of variance		t* test for equality of means					95% confidence interval of the difference	
		F <sup>†</sup>	Significance	t	Degree of Freedom	Significance (Two-tailed)	Mean difference	Standard error of the difference	Decrease	Increase
Mean Vulnerable Child	Assumed equal variance	2.414	0.130	0.807	33	0.426	0.31928	0.39571	-0.48581	1.12437
	Not assumed equal variance			0.802	30.683	0.429	0.31928	0.39826	-0.49331	1.13187
Mean Angry Child	Assumed equal variance	0.052	0.820	0.034	33	.973	0.01013	0.29730	0.59473	0.61499
	Not assumed equal variance			0.034	32.846	0.973	0.01013	0.29738	-0.59500	0.61527
Mean Impulsive Child	Assumed equal variance	0.387	0.538	0.666	33	.510	0.27306	0.40999	-0.56107	1.10718
	Not assumed equal variance			0.669	32.717	0.508	0.27306	0.40816	-0.55763	1.10375
Mean Undisciplined Child	Assumed equal variance	0.000	0.996	1.078	33	0.289	0.40468	0.37533	-0.35892	1.16829
	Not assumed equal variance			1.079	32.954	0.2888	0.40468	0.37509	-0.35847	1.16784
Mean Self-aggrandizement	Assumed equal variance	0.052	0.821	0.414	33	0.681	0.11895	0.28717	-0.46529	0.70320
	Not assumed equal variance			0.413	32.146	0.682	0.11895	0.28805	-0.46768	0.70559
Mean Intimidation and Attack	Assumed equal variance	1.167	0.288	1.019	33	0.316	0.18337	0.17992	-0.18267	0.54941
	Not assumed equal variance			1.012	30.089	0.320	0.18337	0.18127	-0.18678	0.55352
Mean Punitive Parents	Assumed equal variance	1.188	0.284	1.608	33	0.117	0.29281	0.18209	-0.07766	0.66328
	Not assumed equal variance			1.597	30.383	0.121	0.29281	0.18336	-0.08147	0.66709
Mean Demanding/Critical Parents	Assumed equal variance	2.675	0.111	-0.650	33	0.520	-0.16667	0.25649	-0.68849	0.35516
	Not assumed equal variance			-0.658	29.079	0.516	-0.16667	0.25333	-0.68472	0.35138

(continues on the next page...)

		Levene's test for equality of variance		t* test for equality of means					95% confidence interval of the difference	
		F <sup>t</sup>	Significance	t'	Degree of Freedom	Significance (Two-tailed)	Mean difference	Standard error of the difference	Decrease	Increase
Mean Healthy Adult	Assumed equal variance	0.395	0.534	-0.857	33	0.398	-0.23856	0.27848	-0.80512	0.32800
	Not assumed equal variance			-0.855	32.419	0.399	-0.23856	0.27909	-0.80677	0.32964
Mean Happy Child	Assumed equal variance	0.009	0.923	-1.068	33	0.293	-0.38824	0.36367	-1.12813	0.35166
	Not assumed equal variance			1.066	32.536	0.294	-0.38824	0.36432	-1.12985	0.35383

\*t = Student's test for independent samples; <sup>t</sup>F = Statistics between two variances

EMDs can be related to different psychopathologies, and it is important to note that these are also related to different psychopathological symptoms, confirming that certain schemas increase psychological weaknesses<sup>(7)</sup>.

In this sense, the research evaluated the specificity between some EMDs, along with the characteristics of the associated disorders, justifying the idea that EMDs are stable traits that occur with different activations, according to each situation and specific moments<sup>(8)</sup>.

People's events and experiences at the current moment can be associated with the activation of specific schemes, which differ according to each situation, including the moment when YSQ-S3 and SMI were applied. These variables were observed considering the context of hospitalization in chemical dependence clinics, which can represent an important influence on the results, as they are difficult variables to be objectified, configuring a significant limitation of the article. In addition to that, the statistical limitations related to the sample size in view of the large number of EMDs stand out. One study comments that smaller samples make it difficult to trust the results<sup>(9)</sup>. Disregarding qualitative factors such as past history, current life history differentials or other issues, which may influence the way of answering the questionnaires, can also be considered as another limitation<sup>(9)</sup>.

## Discussion

Based on the results found, an important score in the Self-Sacrifice EMD can be observed in relation to the early maladaptive schemas, which is related to individuals who have an excessive focus on voluntarily meeting the needs of others in everyday situations. In regards to the Abandonment EMD, its higher incidence in women with SUD, and who have BPD as a comorbidity, can be explained according to authors who point out that people who have this schema have the feeling that loved ones who are part of their lives no longer participate due to the fact that they are emotionally unpredictable<sup>(1)</sup>.

In the comparison study, the Abandonment/Instability schema obtained an important score. It is part of the first domain, called "Disconnection and Rejection". Patients with schemas in this domain have difficulties establishing secure bonds with other people, in addition to believing that their needs for safety, care, love, belonging and stability will not be met<sup>(10)</sup>. In this sense, the occurrence of a high mean of this EMD can be explained due to the general characteristics of the sample in question, which is characterized as comprised by women who use substances and have BPD as a comorbidity. According to DSM-5, people with Borderline Personality Disorder present desperate efforts to avoid real or imagined abandonment, as well as impulsive behaviors in at least two potentially self-defeating areas, such as substance abuse and excessive spending, for example<sup>(5)</sup>.

The Abandonment EMD also mentions the feeling that one is flawed, inferior and bad, to the extent of not being worthy of receiving love from other people. In some cases, this EMD involves a sense of shame about one's own perceived defects<sup>(10)</sup>. A high score on this EMD can be related to the fact that women who use substances deal in their daily lives with the consequences of breaking away from the stereotype of femininity, associated with passivity and domestic care. As a result of this rupture, they experience social and moral condemnation, permeated by gender issues, which can result in feelings of inadequacy, followed by a sense of shame before the family, children and society as a whole<sup>(11-12)</sup>.

The Dependence/Incompetence EMD is part of the second domain, called "Impaired Autonomy and Performance". Patients with schemas in this domain have expectations about themselves and the world, which end up impairing their ability to differentiate between paternal and maternal figures and, as a result, have difficulties functioning more independently<sup>(10)</sup>.

In relation to the schematic modes, it was possible to observe that there were high scores in "Healthy Adult", which is characterized by the individuals' behavior as an adult, whose emotional needs were met<sup>(2)</sup>. The "Healthy Adult" mode is extremely weak and underdeveloped

in most patients with BPD, especially at treatment initiation<sup>(10)</sup>. However, we understand that the modes are temporary and that patients with BPD continuously move from one mode to another in response to events in their lives; these changes can also happen instantly. In addition to that, the users' treatment time may have contributed to activating this mode, as well as the context in which the questionnaire was applied.

The "Demanding/Critical Parents" mode also scored significantly. This mode is characterized by feelings of being perfect or having great accomplishments, as well as putting the needs of others above their own, avoiding wasting time and keeping everything in order<sup>(13)</sup>. In this sense, attitudes of aggrandizement and arrogance end up standing out and being fixed as stimuli that may prevent possible control by others. A study understood that the search for control involves manipulating people around them, including intimidation, aggression and threats, issues that can be observed in substance users<sup>(14)</sup>.

Another mode that obtained an important mean value was "Happy Child", in which the individual feels satisfied, valued, cared for, welcomed, accepted, understood and validated, among other factors<sup>(13)</sup>. The Child modes present the need for the basic expression of emotions, which are unique to each individual, in addition to being part of the foundation of each person's needs. These expressions permeate self-control, the need for valid emotions, freedom of expression and the feeling of freedom, as well as competence and realistic limits<sup>(14)</sup>. In this sense, a high score in this mode can be better explained due to the movements that occurred during application of the questionnaires. While some patients answered them in an avoidant way, not wanting to talk much about their questions, others ended up adopting a collaborative stance, which was visibly observed during their application. It is important to point out that an introductory movement was always carried out before each application, with the intention of solving the doubts that could arise, which may have contributed positively to freedom of expression. It is worth mentioning that, for the activation of the EMDs, conceptually, the score must be above 5.0.

In relation to the associations between the Schematic Modes, the current study showed that there was no significant difference between the groups.

## Conclusion

After understanding the functioning of Schema Therapy and the results found in the research, the importance of further studies in the area for the investigation and treatment of comorbid and personality disorders is perceived, as the concepts presented by the approach comprise the entire context that involves

patients with a given disorder, allowing for a broad understanding of the individual functioning of the disorder.

Furthermore, the results of this study also show the importance of recognizing the unique characteristics of female substance users, as issues related to gender permeate their everyday lives. In this way, it is fundamental to search for new ways of linking and treating this population.

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**All authors approved the final version of the text.**

**Conflict of interest: the authors have declared that there is no conflict of interest.**

Received: June 17<sup>th</sup> 2022

Accepted: Apr 5<sup>th</sup> 2023

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