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Sexual Cognitive Schemas Mediate the Relationship Between Personality and Sexual Function

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Abstract

Sexual cognitive schemas are central cognitive representations of sexual aspects of self that shape the interpretation of sexual experiences and may contribute to individual differences in sexual functioning. The present study aimed to validate the Questionnaire of Cognitive Schema Activation in Sexual Context (QCSASC) in a Hungarian sample and to examine whether sexual cognitive schemas mediate the relationship between personality traits and sexual functioning. A total of 256 university students (202 females) completed the QCSASC and the Zuckerman–Kuhlman–Aluja Personality Questionnaire. Moreover, the Female Sexual Function Index was administered. The factor structure was examined using exploratory and confirmatory factor analyses, and associations among personality, schemas, and sexual function were tested using correlational, regression, and mediation analyses. Results supported a five-factor structure of the Hungarian QCSASC, identifying Helplessness, Incompetence, Rejection, Unattractiveness, and Unlovability schemas, all showing good internal consistency. Sexual cognitive schemas were positively related to Neuroticism and negatively to Extraversion. Female sexual function was related to the Incompetence schema. Personality traits showed no direct link with female sexual functioning; however, through the sexual cognitive schema, there was a significant indirect link between personality (Extraversion, Neuroticism) and female sexual functioning. These findings suggest that sexual cognitive schemas can represent a pathway between personality traits and sexual functioning.

Keywords: sexual cognitive schema; female sexual function; personality

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1. Introduction

The concept of a schema is central in social–cognitive personality theories, where self-schemas are viewed as stable underlying cognitive structures that contribute to persistent and consistent behavioral patterns [1]. Schemas function as core structures of the cognitive system, enabling individuals to categorize and interpret their experiences [2]. The development of these core schemas is significantly influenced by the social environment; specifically, positive cognitive schemas emerge when an individual's developmental needs are met, whereas negative schemas develop when the needs are frustrated [3,4].

In Beck's cognitive theory of depression [2,5], negative self-schemas are identified as a primary vulnerability factor. These cognitive schemas are fundamental mental structures that guide how individuals assign meaning to life events and process information regarding themselves and their environment [2]. Similarly, Young's Early Maladaptive Schema (EMS) model [4] defines schemas as self-defeating emotional and cognitive patterns concerning oneself and one's personal relationships. Young [4] posits that temperament interacts with adverse childhood experiences, contributing to the development of these negative maladaptive schemas. Thus, EMSs are broad, pervasive, and dysfunctional patterns of memories, emotions, and cognitions that arise when core emotional needs—such as connection, autonomy, or limits—remain unmet during childhood, subsequently predisposing individuals to psychopathology and psychological distress.

Central cognitive representations of the self persist into adulthood and are typically activated in specific life contexts. Andersen and Cyranowski [6] introduced the term *sexual self-schema* to describe cognitive generalizations about sexual aspects of the self. Derived from past experiences, these schemas manifest in current situations, influencing the processing of sexually relevant social information and guiding sexual behavior. Thus, sexual cognitive schemas are cognitive generalizations about the sexual aspects of oneself. Similar concepts have been utilized throughout sexual psychology [7,8]. These concepts are multidimensional and not mutually exclusive; an individual's sexual self-view may simultaneously incorporate positive dimensions (e.g., being "passionate" or "open") and negative dimensions (e.g., being "embarrassed" or "conservative"). However, Nobre and Pinto-Gouveia [9] proposed focusing specifically on cognitive schemas activated during unsuccessful sexual experiences to better understand mechanisms underlying sexual dysfunctions [9]. They have developed a questionnaire to map cognitive schemas related to sexual dysfunctions. The negative association between sexual cognitive schemas and functioning [9] stems from the activation of specific maladaptive components, such as incompetence-related schemas (e.g., "I am a failure" or "I am powerless"), which direct attention toward failure and impair sexual response.

1.1. Personality Traits and Schemas

Trait approaches to personality describe core personality traits and aim to distinguish heritable traits from those acquired through socialization. Over recent decades, trait models have made significant progress in explaining how personality predicts individual differences across various domains, including mental health [10,11]. One of the most prominent frameworks, the Five Factor Model (FFM) [12,13], identifies five broad domains of individual differences: namely, Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. Genetic studies suggest a biological basis for these personality factors [14], with Extraversion and Neuroticism receiving particular attention in mental health research. Neuroticism reflects a biologically based tendency toward poor emotional adjustment and a higher propensity for stress, anxiety, and depression [15]. Extraversion, in contrast, refers to the tendency to be sociable, dominant, and prone to experiencing positive emotions [16].

According to Young et al. [4], personality traits play a significant role in the development of maladaptive schemas. Empirical research by Muris [17] demonstrated that EMSs are significantly associated with Neuroticism. Furthermore, the "Unrelenting standards" schema has been positively linked to Extraversion, as well as to the remaining three FFM dimensions. More broadly, schemas have been proposed as mediating variables between personality and psychopathology [18]. However, to our knowledge, no studies have yet investigated the relationship between personality factors and sexual self-schemas in the context of sexual failures or dysfunctions.

1.2. Assessment and Validation

Nobre and Pinto-Gouveia [9] developed the **Questionnaire of Cognitive Schema Activation in Sexual Context (QCSASC)** to assess cognitive schemas triggered specifically during sexually unsuccessful experiences. Grounded in Beck's fundamental cognitive theory [19], the instrument comprises five Likert-type scales: *Undesirability/Rejection, Incompetence, Self-depreciation, Difference/Loneliness* and *Helplessness* [10]. The *Undesirability/Rejection* scale reflects self-beliefs related to social undesirability, while the *Incompetence* scale measures beliefs associated with failure and a sense of powerlessness. The *Self-depreciation* scale captures thoughts of being inherently unworthy or defective. The *Difference/Loneliness* scale emphasizes the feeling of being fundamentally different from others, and the *Helplessness* scale represents schemas related to dependency and perceived neediness.

According to Nobre and Pinto-Gouveia [10], these five scales can effectively differentiate individuals with sexual disfunction from control groups. The internal reliability of the scales are acceptable (Cronbach alpha is 0.60–0.90), and their test–retest reliabilities are also within an acceptable range (0.49–0.74). The QCSASC shows appropriate construct validity. Furthermore, higher scores on the scales are closely associated with higher Neuroticism and lower Extraversion.

Maladaptive sexual schemas are positively associated with sexual dysfunctions [20], as measured by the International Index of Erectile Function (IIEF) [21] and the Female Sexual Function Index (FSFI) [22]. The QCSASC has also been translated into Persian, where its five-factor structure was largely confirmed, although three items (numbers 5, 6, and 12) were excluded from the model, and the *Self-depreciation* dimension was incorporated into the *Incompetence* and *Undesirability* factors [23].

1.3. The Current Study

The primary aim of this study was to validate the QCSASC questionnaire in a Hungarian sample. A secondary aim was to examine the relationships between personality, sexual cognitive schemas, and sexual functioning to better understand individual differences during unsuccessful sexual experiences. Following the model of McCrae & Costa [13], we posit that basic personality traits influence adaptation processes (patterns of thoughts, feelings, and behaviors), which in turn shape behavioral outcomes. In this framework, sexual schemas (patterns of thoughts in a sexual context) are considered to be a specific form of adaptation, while sexual functioning represents the behavioral outcome. Consequently, we aimed to analyze whether sexual cognitive schemas mediate the relationship between personality and sexual functioning.

2. Materials and Methods

2.1. Sample

The study sample consisted of 256 students (54 males [21.1%; M_{age} = 22.11 years; SD_{age} = 1.59] and 202 females [78.9%; M_{age} = 22.00 years; SD_{age} = 3.47]) recruited from various departments at Eötvös Loránd University. Participation was voluntary and all participants were in their fourth semester of studies at the time of data collection. Notably, only 180 respondents (150 females and 30 males) provided valid data for the sexual function indices; validity was defined as having engaged in sexual activity (either masturbation or partnered sex) within the past month. All participants were briefed on confidentiality and anonymity and provided written informed consent. The study was approved by the Ethical Committee of Eötvös Loránd University (Approval No.: 2013/42).

2.2. Statistical Analysis

Factor structure validation for the Hungarian version of the QCSASC [20] was conducted using Confirmatory Factor Analysis (CFA) with robust maximum likelihood (ML) estimation. The model was tested based on the original five-factor structure proposed by Nobre and Pinto-Gouveia [20]. Given the lack of support for the proposed factor structure in the CFA, the analysis proceeded with an Exploratory Factor Analysis (EFA; maximum likelihood and varimax rotation). The model fit was evaluated using several indices: the Comparative Fit Index (CFI) and the Tucker–Lewis Index (TLI), where values > 0.90 indicate satisfactory fit, and the Root Mean Square Error of Approximation (RMSEA), where values below 0.05 indicate excellent fit, values close to 0.08 indicate adequate fit, and values of at least 0.10 signify poor fit.

Following factor validation, Pearson correlations were calculated between the QCSASC and other measures (FSFI, IIEF, ZKA-PQ). Finally, a mediation model was tested with personality traits as independent variables, the sexual schema total score as mediator and female sexual functioning as the dependent variable.

CFAs and EFAs were performed using Mplus 6.12 [24]. SPSS 22 [25] was used for descriptives, correlations, and regression. JASP 0.96.0.0 [26] was used for the mediation analyses.

2.3. Questionnaires

2.3.1. Questionnaire of Cognitive Schema Activation in Sexual Context (QCSASC)

The QCSASC [20] is a multidimensional instrument with three sections. The present study utilized the third segment, which is gender-neutral and employs a five-point Likert scale to measure maladaptive schemas triggered in unsuccessful sexual situations. This 28-item segment consists of five scales: *Undesirability/Rejection*, *Incompetence*, *Self-depreciation*, *Difference/Loneliness*, and *Helplessness*. Previous studies report acceptable internal consistency (Cronbach alpha is 0.60–0.90), and test–retest reliability (0.49–0.74) [20]. The 28 items were reanalyzed within the current university sample to confirm these properties.

2.3.2. Female Sexual Function Index (FSFI)

The FSFI [22] is a 19-item multidimensional measure of female sexual functioning over the preceding four weeks. It encompasses six domains (desire, arousal, lubrication, orgasm, satisfaction, and pain). Items 1, 2, 15, and 16 have a 1–5 response format, and the other items have scores from 0 to 5. The questionnaire maps the past four weeks of female sexual functioning. Items 1, 2, 15 and 16 are interpretable without reference to a specific sexual act. The FSFI has demonstrated high internal reliability in both clinical and healthy populations [22]. In the current study, Cronbach's alphas for the subscales ranged from 0.81 to 0.97 (Table 1).

Table 1. Summary of fit indices for alternative factor models of the QCSASC.

Model	CMIN/df	CFI	TLI	RMSEA
Original model for females	3.947 ***	0.776	0.727	0.121 (0.113–0.128)
Original model for males	1.873 ***	0.741	0.685	0.127 (0.111–0.144)
Original model for females with modification indices	3.018 ***	0.850	0.838	0.100 (0.092–0.108)

Table 1. *Cont.*

Model	CMIN/df	CFI	TLI	RMSEA
Original model for males with modification indices	1.738 ***	0.790	0.760	0.117 (0.099–0.134)
EFA model—5 factors	2.508 ***	0.899	0.928	0.077 (0.069–0.084)
EFA model—4 factors	2.933 ***	0.898	0.859	0.087 (0.080–0.094)
EFA model—3 factors	3.552 ***	0.854	0.814	0.100 (0.093–0.106)
EFA model—2 factors	4.216 ***	0.799	0.765	0.112 (0.106–0.118)
EFA model—1 factor	5.265 ***	0.711	0.688	0.129 (0.123–0.135)

*** $p < 0.001$.

2.3.3. Zuckerman–Kuhlman–Aluja Personality Questionnaire (ZKA-PQ)

The ZKA-PQ [27] is a 200-item instrument designed to measure psychobiological-based personality factors. The instrument is based upon a four-facet structure for each of the five major personality factors. Items are rated on a 4-point Likert scale. The factors and their respective facets are:

(a) Aggressiveness (AG1: Physical Aggression, AG2: Verbal Aggression, AG3: Anger, and AG4: Hostility); (b) Activity (AC1: Work Compulsion, AC2: General Activity, AC3: Restlessness, and AC4: Work Energy); (c) Extraversion (EX1: Positive Emotions, EX2: Social Warmth, EX3: Exhibitionism, and EX4: Sociability); (d) Neuroticism (NE1: Anxiety, NE2: Depression, NE3: Dependency, and NE4: Low Self-Esteem); and (e) Sensation Seeking (SS1: Thrill and Adventure Seeking, SS2: Experience Seeking, SS3: Disinhibition, and SS4: Boredom Susceptibility). The Hungarian version was developed with 1647 subjects, and its Cronbach alphas were above 0.7 except for the AC1, AC3, NE3 and SS2 subscales (0.67, 0.50, 0.69 and 0.61, respectively) [28]. In the present study, the internal reliability for the factors ranged from 0.85 to 0.93. Also, subscale Cronbach's alpha coefficients were generally acceptable (0.69–0.96), except for the AC3 Restlessness subscale (0.59, see Table 1).

The data will be available on the figshare data repository. The code for SPSS can be asked for from the corresponding author.

Generative artificial intelligence (GenAI) was used exclusively for linguistic editing (grammar and phrasing). All scientific content, analyses, and interpretations were developed by the authors.

3. Results

In the first step, a confirmatory factor analysis (CFA) was conducted on the QCSASC by using the robust maximum likelihood (MLR) method. The original model failed to converge after 1000 iterations, and fit indices could not be estimated. Subsequent analyses were performed to test the model by gender; however, neither the initial nor the modified models achieved acceptable goodness-of-fit values (see Table 1).

Consequently, an exploratory factor analysis (EFA) was performed. Following the criteria established by Nobre and Pinto-Gouveia [9], items with factor loadings above 0.40 were included. In cases of cross-loadings, items were assigned to a factor only if the difference between loadings was at least 0.10. Two-, three-, four-, and five-factor solutions were tested. The five-factor structure demonstrated optimal fit (see Table 1), whereas most

of the fit indices of the four-, three-, two-, and one-factor structures were not within the acceptable range (see Table 1). The five factors were the following: *Helplessness, Incompetence, Rejection, Unattractiveness, and Unlovability* (see Table 2).

Table 2. Factor loadings of the QCSASC in EFA with varimax rotation.

	F1	F2	F3	F4	F5	Original Position in the Portuguese Version
HELPLESSNESS						
1. I am helpless	**0.46** [1]	0.25	0.14	0.08	0.23	helplessness
6. I am needy	**0.81**	0.17	0.17	0.12	0.19	helplessness
7. I am trapped	**0.62**	0.42	0.21	0.10	0.07	helplessness
4. I am weak	**0.63**	0.27	0.07	0.05	0.27	incompetence
5. I am vulnerable	**0.55**	0.21	0.14	0.11	0.22	loneliness
INCOMPETENCE						
2. I am powerless	0.32	**0.63**	0.16	0.12	0.05	incompetence
8. I am inadequate	0.23	**0.70**	0.13	0.17	0.23	incompetence
9. I am ineffective	0.20	**0.78**	0.17	0.15	0.21	incompetence
10. I am incompetent	0.27	**0.50**	0.14	0.18	0.32	incompetence
14. I am not good enough	0.23	**0.55**	0.13	0.32	0.33	incompetence
REJECTION						
20. I am uncared for	0.25	0.09	**0.40**	0.21	0.36	rejection
26. I am bound to be rejected	0.16	0.21	**0.56**	0.30	0.37	rejection
27. I am bound to be abandoned	0.21	0.24	**0.79**	0.22	0.33	rejection
28. I am bound to be alone	0.22	0.23	**0.79**	0.25	0.27	loneliness
UNATTRACTIVENESS						
17. I am undesirable	0.10	0.30	0.24	**0.80**	0.28	rejection
18. I am not attractive	0.18	0.30	0.26	**0.79**	0.30	falls out
UNLOVABILITY						
16. I am unlikable	0.21	0.18	0.23	0.43	**0.64**	self-depreciation
21. I am bad	0.35	0.21	0.23	0.14	**0.52**	self-depreciation
22. I am unworthy	0.38	0.21	0.23	0.26	**0.48**	self-depreciation
12. I am disrespected	0.41	0.16	0.21	0.12	**0.60**	helpless
15. I am unlovable	0.23	0.16	0.26	0.44	**0.64**	rejection
24. I am defective, not loved	0.25	0.26	0.37	0.21	**0.56**	rejection
25. I am not good enough	0.12	0.32	0.30	0.35	**0.62**	rejection
NO CLEAR FIT						
3. I am out of control	**0.42**	**0.46**	0.12	0.15	0.07	falls out
11. I am a failure	0.26	**0.44**	0.30	0.14	**0.47**	incompetence
13. I am defective	0.26	0.34	0.22	0.18	0.39	incompetence
19. I am unwanted	0.17	0.15	0.35	**0.55**	**0.49**	rejection
23. I am different	0.29	0.13	0.27	0.06	0.30	loneliness

[1] Note: Factor-loadings above 0.4 are boldfaced.

As shown in Table 2, the first factor comprised three items from the original Portuguese *Helplessness* factor. The second factor was quite similar to the Portuguese *Incompetence* factor but contained fewer items. The third factor emerged similarly to the original *Rejection* scale, but included an additional item from the Portuguese *Loneliness* factor. The fourth factor consisted of two items reflecting *Unattractiveness*. The fifth factor contained items from the Portuguese *Self-depreciation*, *Helplessness* and *Rejection* factors, but most items reflected *Unlovability* in different ways (I am unlikable/ unworthy/ disrespected/ unlovable/ not loved). Items 3 (I am out of control), 11 (I am a failure) and 19 (I am unwanted) fell out from the structure because these items were loaded above 0.4 in two factors. Items 13 (I am

defective (less than others) and 23 (I am different) did not reach the required factor loading in any factors. When computing the total score, we excluded items 3, 11, 13, 19, and 23.

The relationship between the QCSASC and other validated instruments was also evaluated. Consequently, the descriptive statistics for all concurrent measures were calculated and are summarized in Table 3.

Table 3. Standardized means, standard deviations and reliability.

	Items	Alpha	N	Mean	SD	Skewness	Kurtosis
QCSASC—helpless	5	0.84	256	2.08	0.82	0.65	0.14
QCSASC—incompetence	5	0.86	256	2.35	0.97	0.45	−0.41
QCSASC—rejection	4	0.88	256	1.80	0.91	1.22	1.06
QCSASC—unattractiveness	2	0.93	256	1.99	1.05	0.96	0.23
QCSASC—unlovability	7	0.91	256	1.77	0.81	1.26	1.65
QCSASC—total (23 items)	23	0.95	256	1.99	0.75	0.87	0.70
Aggressiveness factor	40	0.90	256	2.38	0.42	0.22	−0.20
Sensation seeking factor	40	0.88	256	2.46	0.39	0.10	0.80
Activity factor	40	0.87	256	2.57	0.37	−0.26	0.61
Extraversion factor	40	0.91	256	2.97	0.43	−0.20	−0.31
Neuroticism factor	40	0.93	256	2.48	0.48	0.24	−0.30
Female sexual function (only females)	20	0.88	202	3.92	0.84	−1.01	0.27

The kurtosis and skewness values for all primary scales fell within the acceptable range of −2 to 2.

Following Bonferroni corrections for multiple comparisons, correlational analyses revealed that the QCSASC subscales were positively associated with *Neuroticism* and negatively associated with *Extraversion* (see Table 4). Female sexual function was negatively related to *Incompetence*, *Rejection* and *Unattractiveness*. The correlational coefficient was the highest in the case of *Incompetence*. Due to the limited number of male participants, correlations involving the male sexual function index were not computed. Consequently, subsequent regression and mediation analyses were conducted exclusively within the female sample, with female sexual function serving as the dependent variable.

Table 4. Correlations between personality factors, female sexual function, and sexual schema subscales.

		Helplessness	Incompetence	Rejection	Unattractiveness	Unlovability	Sexual Cognitive Schema
AG	R	0.046	0.022	0.045	−0.069	0.033	0.030
	p	0.462	0.726	0.473	0.268	0.600	0.638
	p′	NS	NS	NS	NS	NS	NS
SS	R	−0.110	−0.119	−0.112	−0.144	−0.126	−0.143
	p	0.079	0.057	0.075	0.021	0.043	0.022
	p′	NS	NS	NS	NS	NS	NS
AC	R	−0.073	−0.159	−0.090	−0.108	−0.124	−0.136
	p	0.243	0.011	0.150	0.084	0.047	0.030
	p′	NS	NS	NS	NS	NS	NS
EX	R	−0.296	−0.315	−0.360	−0.265	−0.443	−0.415
	p	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	p′	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 4. *Cont.*

		Helplessness	Incompetence	Rejection	Unattractiveness	Unlovability	Sexual Cognitive Schema
NE	R	0.314	0.404	0.299	0.289	0.422	0.427
	p	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	p′	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FSFI	R	−0.181	−0.275	−0.250	−0.263	−0.121	−0.247
	p	0.010	<0.001	<0.001	<0.001	0.085	<0.001
	p′	NS	<0.001	0.002	0.001	NS	0.002

p: *p*-values of significance. *p′*: Bonferroni corrected *p*-value.

A stepwise linear regression was conducted with the female sexual function as the dependent variable, using the ZKA-PQ factors and the QCSASC scales as independent variables. Only the Incompetence schema scale emerged as a significant predictor. It explained 7.4% of the variance in the Female Sexual Function Index total score ($F(df = 1200) = 15.907$, $p < 0.01$, Beta = −0.271, adjusted $R^2 = 0.069$).

Subsequently, mediation analyses were performed to examine the role of the total sexual cognitive schema score as a mediator in the relationship between personality traits (Extraversion and Neuroticism) and female sexual function (see Table 5). We included only those personality factors, which became significantly related to sexual cognitive schemas within the correlational analyses.

Table 5. Summary of mediation results with sexual cognitive schemas as mediator between personality factors and female sexual function (bootstrap with 1000 replications).

	Estimate	Std. Error	z-Value	*p*	95% CI Low	95% CI High
Path coefficients						
EX → SCS (IV-M)	−0.286	0.057	−5.038	<0.001	−0.398	−0.175
NEU → SCS (IV-M)	0.307	0.056	5.448	<0.001	0.197	0.418
SCS → FSFI (M-DV)	−0.228	0.078	−2.935	0.003	−0.380	−0.076
Direct effects						
EX → FSFI	−0.062	0.089	−0.691	0.490	−0.238	0.110
NEU → FSFI	−0.098	0.092	−1.063	0.288	−0.281	0.076
Indirect effects						
EX → SCS → FSFI	0.065	0.030	2.173	0.030	0.019	0.135
NEU → SCS → FSFI	−0.070	0.030	−2.368	0.018	−0.141	−0.025
Total effects						
EX → FSFI	0.004	0.086	0.044	0.965	−0.163	0.170
NEU → FSFI	−0.168	0.086	−1.951	0.051	−0.334	−0.000

There was no direct relationship between personality (neither Extraversion, nor Neuroticism) and sexual function. However, we found a significant indirect relationship between personality factors (both Extraversion and Neuroticism) and female sexual function through *sexual cognitive* schemas. Total relation became significant only between *Neuroticism* and sexual function (see Figure 1).

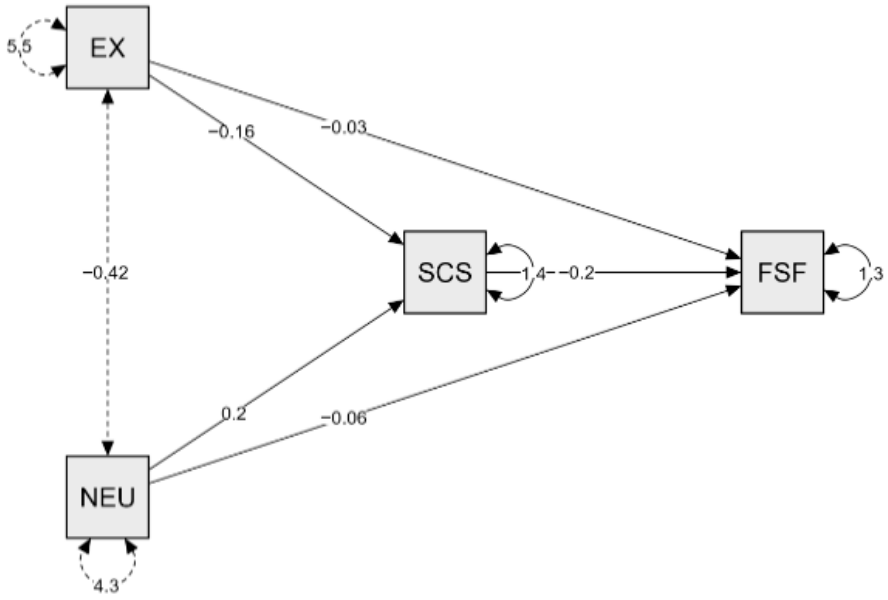

Figure 1. Direct and indirect paths in the link between personality (Extraversion [EX], Neuroticism [NEU]) and female sexual function (FSF) through sexual cognitive schemas (SCS).

4. Discussion

The primary aim of this study was to evaluate the structural validity of the Questionnaire of Cognitive Schema Activation in Sexual Context (QCSASC) in a Hungarian sample [20]. Factor analytic results for the Hungarian adaptation demonstrated that the first two dimensions were highly congruent with the original Portuguese *Helplessness* and *Incompetence* factors. While the *Rejection* factor comprised fewer items in the Hungarian version, the omitted items exhibited strong factor loadings onto another factor shared with *Self-depreciation* items. This emergent factor was subsequentially labeled *Unlovability*. Notably, in Hungarian, a single term is used to express both "unlikeable" (original *Self-depreciation* factor) and *Unlovable* (original *Rejection* factor), which may explain the merging of these two factors.

Another distinctive feature of the Hungarian factor structure was the emergence of *Unattractiveness factor* ("I am undesirable" and "I am not attractive"). This finding may be related to the relatively young age of respondents (university sample), as body satisfaction and perceived attractiveness tend to play a more prominent role in younger populations [29]. Although the Hungarian factor structure differed from the original model, it yielded meaningful and highly reliable factors (subscales).

Our findings suggest that females with negative cognitive schemas may be at increased risk of sexual dysfunction following adverse sexual experiences. Furthermore, our data indicate that these schemas are associated with higher Neuroticism and lower Extraversion. These findings are consistent with some previous studies [30,31], although others [32] have reported no such associations. It is therefore plausible that negative affectivity (high Neuroticism) and reduced positive affect (low Extraversion) contribute to the development of sexual cognitive schemas [33,34].

Previous research has established associations between both personality traits and schemas with sexual dysfunction. For example, Velten and colleagues [35] examined the relationship between the Big Five personality traits and sexual functioning, finding that higher levels of Conscientiousness were associated with better sexual functioning.

We proposed a mediation model to examine the relationship between personality and sexual function in women. Due to the low number of male participants, the analyses were restricted to females. Our model was grounded in a developmental framework. The

Five-Factor Model conceptualizes personality traits as being relatively stable, biologically based dispositions that emerge early in life and remain consistent over time. In contrast, sexual self-schemas are domain-specific cognitive structures that develop later, particularly through sexual maturation and post-pubertal experiences. Sexual functioning, as measured in this study, reflects current functioning in adult women.

Based on this developmental perspective, we conceptualized personality traits as independent variables, sexual cognitive schemas as mediators, and sexual functioning as the dependent variable. Within this framework, temperament traits are assumed to shape how individuals interpret sexual experiences, which in turn influences sexual functioning outcomes.

Our results indicated that personality traits were not directly associated with female sexual functioning; however, an indirect link has emerged through sexual cognitive schemas. This suggests that certain psychobiological-based personality traits (low Extraversion and high Neuroticism) may predispose women to develop more negative sexual schemas, which, in turn, are adversely related to sexual functioning. Nevertheless, alternative models are also theoretically plausible. For example, sexual self-schemas may influence how personality traits are expressed in intimate contexts, or reciprocal relationships may exist. Given the cross-sectional nature of our data, causal conclusions cannot be drawn.

Our findings are consistent with previous studies indicating the presence of negative cognitive schemas and biased information processing in individuals with sexual dysfunction. Earlier research has shown that the *Incompetence* schema is particularly associated with sexual dysfunction in men [36–39]. In our study, the *Incompetence* schema also demonstrated the strongest association with sexual dysfunctions among women. These findings highlight the importance of addressing cognitive schemas—particularly incompetence-related beliefs—during sex therapy.

Limitations

Several limitations of this study should be acknowledged. The sample size and composition (a non-clinical sample with a predominance of female university students) limit the generalizability of the findings. Given the low response rate among males, regression and mediation analyses could only be conducted for female sexual functioning. In addition, the sample size did not permit analyses at the facet level (e.g., the 20 personality facets and the five subscales of sexual functioning), as this would have substantially increased the risk of Type I error. Nonetheless, the risk of Type I error remains a consideration, given the number of associations tested.

Furthermore, the use of a clinical sample might have yielded a higher prevalence of sexual dysfunction and, consequently, more robust data. Another limitation is the exclusive reliance on self-report measures, which may introduce bias. Finally, due to the cross-sectional design, the proposed mediation model remains theoretically grounded but cannot establish causal relationships.

5. Conclusions

In conclusion, the present research supports the validity of the Hungarian version of the QCSASC and provides some insight into cultural differences in the schema factors. The study highlights the central role of sexual cognitive schemas in understanding female sexual functioning. Our findings suggest that while personality traits such as Neuroticism and Extraversion are not directly associated with sexual functioning, they are linked to those incompetence-related beliefs, which in turn are linked to sexual dysfunction. These results underscore the importance of considering domain-specific cognitive processes in sexual health and suggest that interventions targeting negative sexual self-schemas may

be particularly effective in improving sexual functioning. While longitudinal research is required to establish causality, this study offers valuable directions for both future research and clinical practice.

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Abbreviations

The following abbreviations are used in this manuscript:

AG1	AG1 Physical Aggression
AG2	AG2 Verbal Aggression
AG3	AG3 Anger
AG4	AG4 Hostility
SSs1	SS1 Thrill and Adventure Seeking
SSs2	SS2 Experience Seeking
SSs3	SS3 Disinhibition
SSs4	SS4 Boredom Susceptibility
AC1	AC1 Work Compulsion
AC2	AC2 General Activity
AC3	AC3 Restlessness
AC4	AC4 Work Energy
EX1	EX1 Positive Emotions
EX2	EX2 Social Warmth
EX3	EX3 Exhibitionism
EX4	EX4 Sociability
NE1	NE1 Anxiety
NE2	NE2 Depression
NE3	NE3 Dependence
NE4	NE4 Low Self-esteem
AG	Aggressiveness Factor
SS	Sensation Seeking Factor
AC	Activity Factor
EX	Extraversion Factor
NEU	Neuroticism Factor
HL	Helpless
IC	Incompetence
RE	Rejection
UA	Unattractiveness

UL	Unlovability
SF	Sexual Function

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