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PERSONALITY TRAITS AND COGNITIVE STYLES AS PREDICTORS OF SOMATIC SYMPTOMS AMONG GOVERNMENT RETIREES IN ENUGU STATE

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ABSTRACT
The study explored personality traits and cognitive styles as predictors of somatic symptoms among government retirees in Enugu State. A total of 376 participants were drawn from the population of retired civil servants from the Nigeria Union of Pensioners (NUP) Enugu State. They comprised of 208 men and 168 women with the age range of 56 to 82 years with mean = 73.59 and Standard deviation = 5.72. Purposive sampling technique was used to select the participants. Somatic Symptom Scale-8 (SSS-8; Gierk et al., 2014); Eysenck Personality Questionnaire (EPQ; 1975); and Cognitive Styles Questionnaire (CSQ; Ancona et al, 1997) were used as research instruments. Correlation design was adopted while Hierarchical Multiple Regression statistics and Moderated Multiple Regression were used to analyze the data. Results showed that introverted personality trait positively predicted somatic symptoms (β = .30, t = 6.01, p<.01), while extroverted personality trait negatively predicted somatic symptoms (β = -.21, t = -4.05, p<.01). It was also found that judging cognitive style negatively predicted somatic symptoms (β = -.19, t = -3.27 p<.01) while perceiving cognitive style positively predicted somatic symptoms (β = .20, t = 4.00, p<.01). Finally, the result showed that interaction between perceiving cognitive styles and introversion personality trait is significantly positive (t = 2.97, P < .05; LLCI, ULCI = .05, .24); interaction between judging cognitive styles and extroversion personality trait is significantly negative (t = -2.60, P < .05; LLCI, ULCI = -.20, -.03) and interaction between perceiving cognitive styles and extroversion personality trait is significantly positive (t = 4.50, P < .01; LLCI, ULCI = .08, .22). The outcome of the study not only contribute to academic discourse but also has practical implications for enhancing the well-being of retirees in Enugu State through tailored support systems that consider individuals psychological characteristics.

Key Words: *personality, cognitive, traits, somatic symptoms, retirees*

INTRODUCTION
The transition into retirement entails significant changes in social roles, routines, and finances, often causing retirees to experience a loss of identity and purpose linked to their professional lives (Morrison et al., 2020). This life stage frequently results in reduced social interactions and increased loneliness, elevating risks for mental health issues such as depression and anxiety (Dang et al., 2022; WHO, 2023). Retirees are more vulnerable to somatic symptoms due to diminished social networks, economic challenges, and health problems (Atasoy et al., 2022; Zuelke et al., 2020; Pilehvari et al., 2023). Approximately 14% of older adults suffer from mental disorders, particularly depression, yet stigma and generational beliefs often discourage seeking help (World Health Organization, 2023; Cirelli, 2024).

Physical health and mental well-being influence each other recursively; poor physical health can exacerbate somatic symptoms, while unresolved mental health issues may worsen physical conditions (Dang et al., 2022). Chronic illnesses common in retirees, such as cardiovascular diseases and diabetes, increase psychological distress and somatic complaints (Dang et al., 2022; Dave et al., 2007). Retirement may also lead to lifestyle changes including reduced physical activity and unhealthy behaviors, which impair mobility, cognitive function, and overall health, further raising the risk of somatic symptoms.

Social isolation is a major concern, with around 25% of retirees experiencing loneliness that negatively impacts mental health (WHO, 2023). Loss of daily workplace social contact can create a sense of purposelessness. Economic instability, particularly in regions like Nigeria where pension systems are inadequate, intensifies retirees' psychological distress and somatic symptom burden (Dang et al., 2022; Dave et al., 2007). Somatic symptoms—including chronic pain and fatigue—often serve as physical manifestations of psychological distress,

especially prevalent among Nigerian elders due to socioeconomic challenges and healthcare limitations (Eccles & Kevin, 2020; Ogunsemi et al., 2020; Verdurmen et al., 2017).

Personality traits influence this dynamic: introversion, marked by preference for solitude and emotional internalization, heightens stress sensitivity and correlates with anxiety and depression, exacerbating somatic symptoms among retirees (Wu et al., 2022). Extroversion, characterized by sociability and assertiveness, promotes social support that buffers stress but extroverts may still develop somatic complaints if isolated during retirement (Dahli et al., 2021). Both personality types face distinct challenges affecting mental and physical health (Lai et al., 2018).

Cognitive styles also play a role. Judging types prefer structure and predictability, which may increase stress when adjusting to retirement's uncertainties, resulting in physical symptoms like tension or gastrointestinal issues due to emotional regulation difficulties (Okur et al., 2019). Perceiving individuals are flexible and adaptable, which may protect against stress; however, indecisiveness and feeling overwhelmed can cause anxiety and somatic complaints, although their social engagement often reduces isolation (Inamura et al., 2015).

This study, therefore, aims to investigate how personality traits (introversion, extroversion) and cognitive styles (judging, perceiving) predict somatic symptoms among retirees, providing insights to guide tailored mental health interventions aimed at improving well-being amid governance and socioeconomic challenges.

Statement of the Problem

Retirement is a major life transition that can negatively affect well-being, leading to psychological and physical health challenges, especially in Nigeria, where social norms differ from Western contexts. Personality traits like introversion and extraversion influence how retirees cope; introverts may internalize stress leading to anxiety and somatic symptoms, while extroverts often use social networks to buffer stress (Ogunsemi et al., 2023). Additionally, cognitive styles such as judging and perceiving further shape retirees' responses to retirement stress. Clinical observations show that many retirees develop somatic symptoms that impair daily functioning and increase reliance on medication, which carries its own risks (Phan et al., 2018). Given the lack of research on this topic within the Igbo cultural context, this study aims to fill that gap by exploring how personality traits and cognitive styles predict somatic symptoms among Nigerian retirees.

Theoretical Review

This body of theory integrates multiple psychological perspectives to explain somatic symptoms and adjustment among retirees. Psychodynamic theory (Freud, 2012) views somatic symptoms as physical manifestations of unconscious emotional conflicts, where symptoms serve as defenses against deeper pain, reinforced by both internal relief and external gains. Cognitive theory (Beck, 1979) emphasizes that retirees' negative thought patterns and cognitive distortions amplify somatic symptoms, highlighting the role of personality traits (introversion, extraversion) and cognitive styles (judging, perceiving) in shaping stress responses and health outcomes. Psychoanalytic personality theory further explores how unconscious processes and past conflicts influence psychological development during retirement. Eysenck's trait theory (1947) connects extraversion and introversion with retirement satisfaction, showing how these traits affect coping and social engagement. Bandura's social cognitive theory (1986) focuses on self-efficacy, environmental interactions, and observational learning as key to navigating retirement successfully. Finally, the Myers-Briggs Type Indicator (1985) offers insights into cognitive styles affecting retirees' decision-making and well-being. Together, these frameworks underscore that cognitive interpretations, personality traits, and social contexts interact to impact retirees' mental and physical health,

supporting the use of psychotherapy, cognitive interventions, and tailored social support to promote a fulfilling retirement experience.

Empirical Review

Recent studies show strong connections between personality traits—especially introversion, extraversion, and neuroticism—and somatic symptoms in older adults, impacting overall health. Neuroticism consistently predicts more severe somatic complaints, often mediated by factors like social inhibition and emotional issues such as anxiety and depression. Introversion is linked to self-criticism and greater vulnerability to somatic symptoms, although introverts may sometimes experience less pain during social isolation compared to extraverts. Research on medically unexplained symptoms points to distinct personality profiles characterized by high neuroticism and low extraversion. Additionally, traits like conscientiousness influence physical functioning and risk factors like falls. In Nigeria, Big Five traits such as conscientiousness and openness are associated with better psychological well-being, while extraversion predicts retirement stress. Proactive personality and social support reduce pre-retirement anxiety, highlighting the importance of tailored psychosocial interventions. Cognitive styles also interact with emotional functioning to affect somatic symptoms, with cognitive biases and poor emotional regulation exacerbating physical complaints. Among aging populations, cognitive decline is related to depression and increased fall risk, and social factors significantly influence mental health and retirement satisfaction across African contexts. Emotional health issues like depression and anxiety are common but often underreported among Nigerian retirees, where retirement planning and physical activity are vital for promoting well-being. Overall, these findings stress the complex interplay of personality, cognition, emotional health, and social environment in shaping somatic symptoms and quality of life in older adults, underscoring the need for culturally sensitive and multifaceted support strategies.

Hypotheses

Personality traits (Introversion, Extroversion) will jointly and independently predict somatic symptoms among government retirees in Enugu State.

Cognitive styles (Judging, Perceiving) will jointly and independently predict somatic symptoms among government retirees in Enugu State.

Personality traits (Introversion, Extroversion) and cognitive styles (Judging, Perceiving) will jointly significantly predict somatic symptoms among government retirees in Enugu State.

METHOD

Participants

A total of 407 participants were selected from the civil servant retirees of the Nigeria Union of Pensioners (NUP) in Enugu State, comprising 217 men and 190 women. Their ages ranged from 52 to 84 years, with a mean age of 73.59 years and a standard deviation of 5.72. All participants were Christians and had educational qualifications ranging from a Senior Secondary School Certificate to a Master's degree.

A mixed sampling approach combining purposive and availability sampling was employed. Purposive sampling was used to select retirees who met the inclusion criteria of experiencing somatic symptoms, while excluding those with specific physical conditions such as heart disease, diabetes, asthma, or stroke. Participation was voluntary, involving only retirees willing to take part in the study. The sample size was determined using Yamane's (1967) statistical formula for known populations.

Instruments

Somatic Symptom Scale-8 (SSS-8; Gierk et al., 2014)

The Somatic Symptom Scale-8 (SSS-8), developed by Gierk et al. (2014), is a brief self-report tool designed to measure the burden of somatic symptoms, particularly those without clear medical explanations, relevant for diagnosing somatic symptom disorder (SSD) as per DSM-5 criteria. The scale assesses common somatic complaints frequently seen in primary care, facilitating quick screening and evaluation.

Respondents rate how much they have been bothered by eight specific somatic symptoms over the past week using a 5-point Likert scale from 0 (Not at all) to 4 (Very much). Total scores range from 0 to 32, with burden categories defined as: no to minimal (0–3), low (4–7), medium (8–11), high (12–15), and very high (16–32), aiding in clinical interpretation (Gierk et al., 2014; Elmar, 2016). Completion typically takes about one minute.

The SSS-8 demonstrates excellent reliability, with a Cronbach's alpha of 0.81 and item-total correlations above 0.40. It also shows strong construct validity, correlating positively with depression ($r = 0.57$) and anxiety ($r = 0.55$). The scale's content validity is supported by its derivation from the widely validated Patient Health Questionnaire-15 (PHQ-15) (Elmar, 2016). In the current study's pilot with 40 retirees from the Nigeria Union of Pensioners (NUP) in Ebonyi State, the SSS-8 achieved a Cronbach's alpha of 0.82 and an intrinsic validity of 0.91 (Guilford, 1954), confirming its reliability and suitability for the population.

Eysenck Personality Questionnaire (EPQ; Eysenck, & Eysenck, 1975)

The Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975) is a psychometric instrument designed to assess three primary personality dimensions: Extraversion, Neuroticism, and Psychoticism. Various versions of the EPQ exist, including the revised form (EPQ-R) and abbreviated formats. In this study, 21 items measuring the extraversion-introversion dimension were extracted from the original 90-item EPQ. Respondents rated items on a 5-point Likert scale ranging from 1 (Not at all) to 5 (Extremely), with certain items inversely scored. Total scores range from 21 to 105, where higher scores indicate extraversion and lower scores indicate introversion.

The extraversion scale demonstrates good reliability, with Cronbach's alpha coefficients typically between 0.74 and 0.84, and strong test-retest reliability ranging from 0.70 to 0.90 (Scheibe et al., 2021; Alexopoulos & Ioannis, 2004). Construct validity is supported by factor analyses confirming the theoretical model. The EPQ has been widely used in personality research and applied contexts, including studies conducted in Nigeria (Jegede, 1980; Awaritefe & Kadiri, 1981; Dada, 1992; Osinowo, 1994; Idemudia, 1997). In the current study's pilot involving 40 retired civil servants from the Nigeria Union of Pensioners (NUP), a Cronbach's alpha of 0.76 was obtained, indicating acceptable internal consistency. The intrinsic validity, calculated as the square root of reliability (Guilford, 1954), was found to be 0.87.

Cognitive Styles Questionnaire (CSQ; Ancona et al, 1997)

The Cognitive Styles Questionnaire (CSQ), developed by Ancona et al. (1997), is a 30-item paired questionnaire designed to assess individual cognitive styles, including Analytical vs. Intuitive Thinking, Reflective vs. Impulsive Decision-Making, and Judging vs. Perceiving. For this study, the 7 paired items of the Judging vs. Perceiving subscale were utilized to evaluate how individuals prefer to interact with their environment in decision-making situations. Those with a judging style tend to be organized, structured, and decisive, while perceiving individuals are more flexible, adaptable, and open to new information. The CSQ typically takes about 10 minutes to complete, with no right or wrong answers. Scores are summed to determine a participant's dominant cognitive style; a difference of more than 4 points between judging and perceiving indicates the preference. For example, a score of 20 on judging versus 15 on perceiving reflects a judging cognitive style.

The instrument demonstrates good reliability, with reported Cronbach's alpha coefficients between 0.75 and 0.90 across populations (Ancona et al., 1997). In the current study, a pilot test with 40 retired civil servants from the Nigeria Union of Pensioners yielded a Cronbach's alpha of 0.71, indicating acceptable internal consistency. The instrument's intrinsic validity, calculated as the square root of reliability (Guilford, 1954), was .69.

Procedures

The researcher formally introduced the study to the Chairmen of the Nigeria Union of Pensioners (NUP) in Ebony State and obtained their permission. Informed consent was secured from all participants, emphasizing their right to withdraw at any time without penalty. Confidentiality and anonymity were assured, with clear explanations of data protection measures. Data collection occurred over six weeks during the union's weekly meetings and seminars. The Chairmen acted as research assistants, using their rapport with participants to foster trust and assist those with physical limitations in completing questionnaires while ensuring authenticity. The researcher was also present to clarify doubts and encourage honest responses. Paper questionnaires were distributed and collected at each session, with introductions provided for new participants to explain the study's purpose.

Out of 432 questionnaires administered, 392 were returned, and 376 (96%) were correctly completed and analyzed. Sixteen (4%) incomplete or improperly filled questionnaires were discarded, aligning with the sample size determined by Yamane's (1976) formula.

Design and Statistics

The study employed a correlational design since the researcher did not have direct control over the variables, which had already manifested naturally. This design allowed examination of the existing relationships between the independent variables (personality traits and cognitive styles) and the dependent variable (somatic symptoms) to determine significant predictive effects. Hierarchical Multiple Regression analysis was utilized to assess the individual contributions of each dimension of the independent variables on somatic symptoms, enabling the researcher to understand how each factor uniquely and collectively predicts the outcome.

Additionally, a post-hoc Moderated Multiple Regression was conducted using SPSS version 27 to test the third hypothesis. This analysis examined whether personality traits moderate the relationship between cognitive styles and somatic symptoms, revealing potential interaction effects between these variables.

RESULTS

Table 1: Summary of Descriptive Statistics for Study and Demographic Variables

Variables	Mean	Std. Deviation	Minimum	Maximum	N
Age	73.59	5.72	56.00	82.00	407
Gender	.45	.50	.00	1.00	407
Introversion	8.68	1.98	4.00	19.00	407
Extroversion	17.99	1.70	14.00	21.00	407
Judging	26.50	3.62	19.00	33.00	407
Perceiving	26.44	3.84	20.00	34.00	407
Somatic Symptoms	30.51	4.38	19.00	39.00	407

Table 1 above shows mean, standard deviation, minimum, maximum scores of the demographic variables (age and Gender) and the study variables. Also, the table shows the total number of participants that took part in the study.

Table 2: Summary of Hierarchical Multiple Regression Analysis for Variables Predicting Somatic Symptoms (N=407)

	Step 1		Step 2		Step 3	
	β	***t***	**β**	***t***	**β**	***t***
Age	.37	7.77**				
Gender	.13	2.74**				
Introversion			.30	6.01**		
Extroversion			-.20	-4.05**		
Judging					-.19	-3.27**
Perceiving					.20	4.00**
R	.38		.48		.52	
R^2	.15		.23		.27	
ΔR^2	.15		.09		.04	
F	32.09(2,373)		20.98(2,371)		9.88(2,369)	

*Note*p<.05;**p<.01*

The results of the hierarchical multiple regression analysis, as shown in Table 2, indicate that the demographic variables significantly predicted somatic symptoms. When entered in a stepwise manner, age was a significant predictor ($\beta = .37$, $t = 7.77$, $p < .01$), as was gender ($\beta = .13$, $t = 2.74$, $p < .01$). Due to their significant predictive value, age and gender were included as control variables in Step 1 of the regression model.

In Step 2 of the hierarchical multiple regression, personality traits (Introversion and Extraversion) were entered and found to be significant predictors of somatic symptoms. Specifically, the introversion trait positively predicted somatic symptoms ($\beta = .30$, $t = 6.01$, $p < .01$), while extraversion negatively predicted somatic symptoms ($\beta = -.21$, $t = -4.05$, $p < .01$). Personality traits explained 9% of the variance in somatic symptoms ($\Delta R^2 = .09$). Therefore, personality traits significantly predict somatic symptoms among retirees, leading to the acceptance of Hypothesis One.

In Step 3, cognitive styles (Judging and Perceiving) were added and also significantly predicted somatic symptoms. Judging cognitive style negatively predicted somatic symptoms ($\beta = -.19$, $t = -3.27$, $p < .01$), whereas perceiving cognitive style positively predicted somatic symptoms ($\beta = .20$, $t = 4.00$, $p < .01$). Cognitive styles accounted for an additional 4% of the variance ($\Delta R^2 = .04$). Thus, cognitive style is a significant predictor of somatic symptoms among retirees, and Hypothesis Two was accepted.

Table 3: Post-Hoc: Moderated Multiple Regression table on the moderating role of Personality Trait on Cognitive Style as a predictor of Somatic Symptoms among retirees

Latent Variable: Somatic Symptoms	R^2	df1(df2)	F	Std Error	T	LLCI	ULCI
Observed Variables							
Model 1	.02	3(372)	2.08				
A- Judging				.31	.44	-.47	.74
B- Introversion				.81	.97	-.81	2.39
A*B.				.04	**-.72**	-.09	.04
Model 2	.06	3(372)	7.24				
C- Perceiving				.43	-2.54	-1.92	-.25
B- Introversion				1.37	-2.75	-6.39	-1.06
C*B				.05	**2.97***	.05	.24
Model 3	.05	3(372)	5.79				
A- Judging				.77	2.52	.43	3.48
D- Extroversion				1.13	2.24	.31	4.75
A*D				.04	**-2.60***	-.20	-.03
Model 4	.08	3(372)	11.28				
C- Perceiving				.61	-4.29	-3.80	-1.41
D- Extroversion				.88	-4.83	-6.00	-2.53
C*D				.03	**4.50****	.08	.22

Note***p<.01;** *p<.05*

Model 1: Judging cognitive styles and Introversion personality trait

The results indicate that the interaction between judging cognitive style and introversion personality trait is not significant (t = -0.72, p > .05; LLCI = -0.09, ULCI = 0.04). Because the confidence interval includes zero, this suggests no statistically significant interaction effect, meaning that judging cognitive style does not moderate the relationship between introversion and somatic symptoms. Therefore, no further graphical representation of this interaction is necessary.

Conversely, the interaction between perceiving cognitive style and introversion personality trait is significant and positive (t = 2.97, p < .05; LLCI = 0.05, ULCI = 0.24). Since both the lower and upper confidence limits are positive and do not include zero, this confirms a statistically significant moderation effect. This means that as perceiving cognitive style increases, the effect of introversion on somatic symptoms also increases. Accordingly, Hypothesis Three, that introversion moderates the relationship between perceiving cognitive style and somatic symptoms among retirees, is accepted.

Model 3: Judging cognitive styles and Extroversion personality trait

The results indicate a significant negative interaction between judging cognitive style and extroversion personality trait (t = -2.60, p < .05; LLCI = -0.20, ULCI = -0.03). Since both the lower and upper confidence intervals are negative and do not include zero, this confirms that the interaction effect is statistically significant and negative. This means that as judging cognitive style increases, the effect of extraversion on somatic symptoms decreases. Therefore, extroversion significantly moderates the relationship between judging cognitive style and somatic symptoms among retirees. Consequently, Hypothesis Three, which stated that extroversion would significantly moderate this relationship, is accepted.

Model 4: Perceiving cognitive styles and Extroversion personality trait

The results show a significant positive interaction between perceiving cognitive style and extroversion personality trait (t = 4.50, p < .01; LLCI = 0.08, ULCI = 0.22). Since both the lower and upper confidence intervals are positive and exclude zero, this confirms the interaction effect is statistically significant and positive. This means that as perceiving cognitive style increases, the effect of extroversion on somatic symptoms also increases. Therefore, extroversion significantly moderates the relationship between perceiving cognitive style and

somatic symptoms among retirees. Consequently, Hypothesis Three, stating that extroversion would significantly moderate this relationship, is accepted.

DISCUSSION

The first hypothesis, stating that personality traits (introversion and extraversion) would jointly and independently predict somatic symptoms among government retirees in Enugu metropolis, was supported by the study's results. Introversion positively predicted somatic symptoms, meaning retirees with higher introversion scores experienced more somatic complaints. Conversely, extraversion negatively predicted somatic symptoms, with higher extraversion scores associated with fewer somatic complaints. This confirms that personality traits significantly influence somatic symptom expression among retirees.

These findings align with previous research by Hyphantis et al. (2013), Wongpakaran and Nahathai (2014), and Mostafaei et al. (2019), which also demonstrated the link between personality traits and somatic symptoms. The mechanisms behind these relationships involve psychological, social, and physiological factors. For example, introverts tend to internalize stress and may use different emotional regulation strategies compared to extroverts, who often express and manage stress through social engagement. This internalization can lead to increased anxiety, depression, and physical manifestations such as muscle tension and gastrointestinal issues. Social support plays a pivotal role in mitigating somatic symptoms, but introverts may struggle to seek social interactions post-retirement, leading to isolation and loneliness—factors closely tied to increased somatic symptoms. In contrast, extroverted retirees often maintain active social lives and adaptive coping strategies that buffer stress, reducing their risk of somatic complaints (Macía, 2020). Participation in community activities and physical exercise, more common among extroverts, further supports their better health outcomes (Lai & Nan, 2018; Kekäläinen et al., 2020).

Physiologically, introverts may have a more reactive stress response system (hypothalamic-pituitary-adrenal axis), and chronic stress can dysregulate this system, contributing to inflammation and chronic pain. Their tendency to engage in solitary, less physically active pursuits may increase vulnerability to health problems linked to inactivity. Extroverts generally exhibit higher physical activity levels, which promote better health and reduce somatic symptoms (Kekäläinen et al., 2020). Moreover, extroverts often adapt more effectively to retirement-related life changes by actively seeking new social connections and activities, enhancing resilience and reducing somatic symptoms (Robinson & Smith, 2021). Their generally lower neuroticism also contributes to fewer anxiety and depressive symptoms, which are known to exacerbate somatic complaints (Macía, 2020; Kekäläinen et al., 2020).

The negative prediction of somatic symptoms by extraversion underscores the significant role of personality traits in health outcomes among retirees. Promoting social engagement and physical activity tailored to personality differences can improve retirees' psychological and physical well-being, ultimately decreasing the prevalence of somatic symptoms in aging populations.

The second hypothesis stating that cognitive styles (judging and perceiving) predict somatic symptoms among retirees in Enugu was confirmed. Judging cognitive style negatively predicted somatic symptoms, with high judging scores linked to fewer complaints, while perceiving cognitive style positively predicted somatic symptoms, with higher perceiving scores associated with increased complaints (Okur Güney, 2019; Wei et al., 2020; Edwards et al., 2020; Thieme et al., 2022; Bailer et al., 2023; Rief et al., 2023; Petzke & Michael, 2024; Jiang, 2024; Sahm et al., 2024). Retirees with judging cognitive style prefer structure, decisiveness, and organization, enabling better management of health uncertainties and reduced anxiety through cognitive reappraisal and goal-oriented behaviors, such as regular

check-ups and healthy lifestyle maintenance. This style fosters lower catastrophic thinking and encourages social engagement, further buffering somatic symptoms.

In contrast, perceiving cognitive style retirees focus on present experiences, leading to heightened bodily awareness and somatosensory amplification, where minor sensations are misinterpreted as serious health issues. This style often leads to increased anxiety, rumination, and catastrophic thinking, amplifying somatic symptom reports. Social influences may also heighten symptom awareness through feedback loops. Understanding these mechanisms can help tailor interventions to retirees' cognitive styles, improving well-being and reducing unnecessary somatic complaints.

The third hypothesis revealed a significant positive interaction between perceiving cognitive styles and introversion personality traits on somatic symptoms, indicating that introverted retirees with perceiving cognitive styles report higher levels of somatic symptoms (Frisoni, 1999; Paker, 2021). This combination may lead to internalized stress and difficulty coping, resulting in increased symptom reporting and social withdrawal (Pocnet et al., 2020). Conversely, a significant negative interaction was found between judging cognitive styles and extroversion traits, where retirees with both traits reported fewer somatic symptoms due to effective stress management and social support (de Vroege et al., 2022). Additionally, perceiving cognitive style combined with extroversion showed a significant positive interaction, suggesting that the flexibility of perceiving paired with extroversion's social sensitivity may increase somatic complaints (Costa & McCrae, 1992; Schwaba & Bleidorn, 2019).

Implications of the Findings

The study found that personality traits (introversion, extroversion) and cognitive styles (judging, perceiving) significantly predict somatic symptoms among retirees, offering important implications for healthcare interventions. Introverted retirees tend to experience higher somatic symptoms, so targeted support programs and peer groups may reduce loneliness and provide emotional support. Healthcare providers should be trained to recognize somatic symptom disorders in introverted older adults to improve care. Extroverts, characterized by sociability and resilience, often cope better with stress, reducing somatic complaints through larger social networks and emotional support (Flowers et al., 2022; Okur Güney et al., 2019). Promoting social engagement and group-based mental health interventions can benefit extroverted retirees.

Cognitively, judging styles negatively predict somatic symptoms; structured, decisive retirees manage health proactively, use cognitive reappraisal, and experience less anxiety (Edwards et al., 2020). Interventions like cognitive-behavioral therapy (CBT) can reinforce these strengths by promoting organization and planning. Conversely, perceiving styles positively predict somatic symptoms; these retirees' flexibility and focus on immediate experiences can heighten bodily awareness and anxiety, leading to symptom amplification through rumination and catastrophic thinking. Mindfulness and emotional regulation interventions may assist these individuals (Thieme et al., 2022; Rief et al., 2023).

The interaction between cognitive styles and personality traits is critical. Introverted perceivers show increased somatic symptoms due to internalized stress and indecisiveness, whereas extroverted judgers report fewer symptoms owing to structured coping and social support (de Vroege et al., 2022; Kang et al., 2023). Extroverted perceivers, however, may be more sensitive to physical health concerns due to social interactions highlighting symptoms. Tailored interventions emphasizing cognitive-behavioral strategies for introverts and social engagement for extroverts can improve retirees' well-being by balancing cognitive and emotional health needs (Finogenow, 2013; Löckenhoff et al., 2009; Kang et al., 2023).

Limitations

The study's focus on retirees from Enugu State limits the generalizability of findings to other regions with different socio-economic and cultural contexts. Initial participant reluctance, due to concerns about pension payments, posed challenges to data collection but was mitigated through rapport-building by the researcher.

Suggestions for Further Study

Future research should incorporate longer longitudinal designs to examine how personality traits and cognitive styles affect somatic symptoms over time. Expanding samples to include diverse socioeconomic, cultural, and ethnic groups would improve generalizability and allow cross-group comparisons. Researchers are encouraged to assess additional psychological factors like emotional well-being, coping strategies, and life satisfaction for a more comprehensive understanding. Intervention studies targeting personality or cognitive style modifications could explore ways to reduce somatic symptoms. Moreover, cross-cultural investigations are necessary to understand cultural influences on these relationships and to develop culturally sensitive interventions.

Summary and Conclusion

This study found that personality traits—introversion and extroversion and cognitive styles judging and perceiving significantly predict somatic symptoms among retirees. Judging and introversion did not significantly interact in predicting symptoms; however, perceiving paired with introversion was linked to heightened somatic symptoms. Conversely, judging combined with extroversion predicted fewer symptoms, while perceiving with extroversion was associated with increased symptom reporting. These findings highlight a complex interaction between personality, cognition, and physical health in retirees. They emphasize the importance of considering both personality traits and cognitive processing styles in health assessments and developing tailored interventions to enhance retirees' psychological and physical well-being.

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