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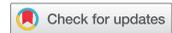
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Creative Self-Concept, Post-Traumatic-Growth, and Professional Identity Resilience in Counselors with Traumatic Experiences: A Canonical Correlation Analysis

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ABSTRACT

The purpose of this study was to address current gaps in the literature related to creative self-concept, post-traumatic growth, and professional identity resilience in counselors ($n = 116$). A canonical correlation analysis (CCA) and stepwise regression analyses were conducted to explore the relationships among variables. Small correlations were found between professional identity and the creative self, as well as with CACREP affiliation. Creative self-efficacy (CSC) scores were generally high, suggesting that creatives may be drawn to the counseling profession, and CSC may be robust. Suggestions for future research are provided.

KEYWORDS

Burnout; CACREP; compassion satisfaction; canonical correlational analysis; counselors; creativity; creative metacognition; creative self-concept; creative self-efficacy; post-traumatic growth; professional identity; resilience; secondary traumatic stress; trauma; traumatic incidents; numinous; creative instinct; symbolic function; creativity in counseling

Introduction

A strong sense of professional identity is necessary in order to safeguard client care and sustainable careers in mental health (Brooks, 2015; Nissen-Lie et al., 2017; H. R. Woo & Henfield, 2015). Therefore, it is essential that counselors adequately address the underlying issues that may impact their professional identity development and resilience (Wilkinson, 2011). For years, research has demonstrated the harmful impact that traumatic experiences can have on the brain, including emotional regulation and career success (Center for Disease Control and Prevention, 2019; Perry et al., 1995). Now, new evidence suggests positive associations between post-traumatic growth and creativity (Liang et al., 2020). This information may be of interest, and applicable to the counseling profession to inform training and advocacy efforts.

Creativity is considered a dynamic, emergent metacognitive process, often involving curiosity, exploration, a period of not-knowing, and surprise (Beghetto & Karwowski, 2018). It has long been recognized that humans possess a creative instinct, “feeble in some, perceptible in others, brilliant in the great inventors” (Ribot & Baron, 1906, p. 42). As Carl Jung noted years ago, “Though we cannot classify it with a high degree of accuracy, the creative instinct is something that deserves special mention” (Jung, 1936/1960, p. 163– 4).

The earliest psychologists suggested that mental imagining, including in those suffering from emotional disturbances, is related to creativity; all creative images and acts imply a feeling tone and are said to arise from another need: from practical inventions, to social adaptations, to feeding curiosity, or emotionally discharging through play (Ribot & Baron, 1906). Postulated to be an aspect of survival and meaning-making, the creative instinct may be considered the drive to engage in the symbolic function, discussed at length in developmental psychology as the cognitive ability to imagine objects not in sight, involved in perception, attachment, reading social cues, understanding language, including the abstract use of metaphor, and symbolic understanding (Benedek et al., 2014). Recent neuro-psychoanalytic research has identified the parallel concept of the *instinct of imagination* (Alcaro & Carta, 2019), involved in a variety of intra- and inter-subjective processes relevant to creativity in counseling including imagining, remembering, reflecting, and meaning-making. These findings support Jung's theory that the creative instinct assists in organizing the psyche in creating meaningful patterns from what at first seems to be chaotic information, why the creative arts are efficacious, and worthy of additional support and recognition in the field (Perryman et al., 2019; Schillirò, 1988; Wiersma et al., 2022).

There are differences in the way we create alone, versus when we travel through the process with others (Kaimal, 2022). As a result, creativity has been observed and measured both in personal and professional aspects of life (Pringle & Sowden, 2017). Creativity is also considered an aspect of spiritually competent counseling, as it contributes to our development and well-being in many aspects of life (Kaimal, 2022; Matise et al., 2018). With efforts to enhance spiritual competency training supported by various organizations in the field, including the Association for Spiritual, Ethical, and Religious Values in Counseling (Association for Spiritual, Ethical, and Religious Values in Counseling, 2022), and the Council for Accreditation of Counseling and Related Educational Programs (CACREP, 2018), creativity is now understood not only as a trait, but a state, as well as a metacognitive skill which can be supported, developed, and integrated into culturally informed counselor education and practice (Karwowski, 2012; McRoberts, 2022; Parker et al., 2021).

Those with flexible creative cognition may also be more resilient, internally aware, and empathetic (Brockhouse et al., 2011; Petchkovsky et al., 2013). The concept of creative self-efficacy, or one's belief in their ability to attain innovative outcomes, has emerged in the literature as being an important aspect of creative self-concept and may impact creative performance (Shaw et al., 2021). The role of creativity and mental health continues to be debated (Kauffman & Beghetto, 2009), while creative counseling interventions and counselor education strategies continue to gain notoriety (Hash, 2021). However, limited research has addressed how counselors' trauma experiences may relate to their sense of professional identity (Boyras et al., 2016) or creative self-concept, though many have come into the field with traumatic experiences of their own (Perry et al., 1995). In order to maintain professional efficacy, counselors must address personal and professional barriers to wellness (Yager & Tover-Blank, 2007).

From a neuroscientific symbolic interactionist framework, the working brain is a social and environmental product, with the brain and the environment both impacting perceptions of existence (Franks, 2003). Individual worldviews are often based on earlier experience, with the brain's neurophysiological mechanisms for coping developing out of what has worked before. When counselors have experienced traumatic life events, the likelihood of shared traumatic experiences with clients increases, putting counselors at increased risk

of secondary traumatic stress and burnout (Sartor, 2016). Unfortunately, counselors, like clients, may become stuck in methods of coping that are either ineffective or hazardous within the professional context, leading to a lack of professional self-efficacy (Panskepp & Biven, 2012). Cognitive distortions, including negativity bias, symbolic projections, feeling-toned complexes, and other emotional discharges, have been identified as aspects of subjective identity, to be considered from a neuro-ethical approach (Alcaro & Carta, 2019). These coping patterns often stem from earlier life experiences where a productive platform for developing metacognition was nonexistent (Brinck & Liljenfors, 2013). As a result, it is imperative that counseling research identify interventions within counselor training programs which provide opportunities for developing counselors to integrate new methods of knowing and exploring their own metacognitive processes into their repertoire (Wilkinson, 2011) as well as the impact of these processes on their ability to maintain ethical practice (Parker et al., 2021).

Previous research in areas of trauma and growth among counselors has demonstrated that counselors' ability to increase awareness of their emotions and regulate them assists with maintaining benevolence and empathy, increases self-efficacy, and may help to prevent compassion fatigue and burnout (Bandura, 1977; Rozentsvit, 2016; Stamm, 2010). Those with flexible creative cognition can use self-expression as an adaptive response, leading to increased resilience and empathy (Brockhouse et al., 2011; Kaimal, 2022). Although there is limited evidence of what interventions are incorporated into counselor training, CACREP (2016) standards suggest that mastery of self-awareness is necessary to develop a strong sense of professional identity. There is a call from the field of counseling, and higher education in general, to address how programming specifically supports and develops creative cognition (Miller & Dumford, 2016; Wilkinson, 2011). Higher levels of education and years in the field appear to facilitate cognitive complexity (Granello, 2010), but creative cognition may remain steady with adequate support (McRoberts, 2022). However, no studies have examined if counselors' creative self-concept may act as a predictor of professional identity resilience or post-traumatic growth.

Method

The main purpose of this study was to identify what relationships exist among creative self-concept, post-traumatic growth, and professional identity resilience in counselors with traumatic experiences. A multiple-questionnaire survey was developed, guided by a non-experimental correlational research design, to identify and explore the factors of metacognitive flexibility as measured by the Short Scale of Creative Self (SSCS; Karwowski et al., 2018; creative self-concept as total score of subscales on creative self-efficacy and creative personal identity), Post-traumatic Growth as measured by the Posttraumatic Growth Inventory ($\alpha = .67-.87$) (PGI; Tedeschi & Calhoun, 1996), and professional identity resilience as measured by the Professional Identity Scale in Counseling (PISC; H. R. Woo & Henfield, 2015). Participants also completed the Life Events Checklist-5 (test-retest correlation of $r = .82, p < .001$) (LEC-5; F. W. Weathers et al., 2013) to screen for traumatic experiences, one of the study criteria. An anonymous demographic survey was also included, in which participants described their age, gender, ethnicity, years of experience,

license, degree type, and whether they were trained in a CACREP or non-CACREP institution.

Sampling procedures and data collection

After receiving IRB approval from the University of the Cumberland, participants identifying as currently practicing counselors were recruited through snowball sampling, a recruitment e-mail through various counseling listservs as well as by invitation through counseling association interest groups. The invitation included a link to the self-report questionnaire.

Data was collected through QualtricsXM (Qualtrics, 2020), exported to Excel for organization, and statistical procedures completed using JASP Team (2020) and XLSTAT (Addinsoft, 2022). A G*Power (Faul et al., 2009) computation indicated that a minimal sample size of 107 participants was required to effectively analyze this data for a regression analysis.

Measures

LEC-5

The LEC-5 self-report tool is used to assess experiences of traumatic events. It includes 17 items that are considered traumatic such as natural disasters, incidents of violence, and injury or death, among others, that individuals may have witnessed or learned about or which could have happened to them. Participants also indicated whether the trauma was a result of their job (F. W. Weathers et al., 2013). For each past traumatic event, clients rated their experience of the event on a 5-point nominal scale: 1 = happened to me, 2 = witnessed it, 3 = learned about it, 4 = not sure, and five = does not apply (Gray et al., 2004). The LEC has adequate interrater reliability, with a mean kappa value for all items of .61 and a test-retest correlation of $r = .82$, $p < .001$. Convergent validity of the LEC has been measured through comparison with similar measures such as the Traumatic Life Events Questionnaire (Kubany et al., 2000), with a total scale correlation of $r = -.55$, $p < .001$, and has demonstrated strong convergence with the PTSD Checklist (F. Weathers et al., 1991), and the PTSD Checklist-Military version (U.S. Department of Veterans Affairs, 2019). It is one of the most commonly used trauma measures for adults, as indicated by its development as a method of assessing individuals for meeting PTSD diagnostic criteria in the DSM-5 (U.S. Department of Veterans Affairs, 2019).

PTGI

The PTGI (Tedeschi & Calhoun, 1996) rates the extent to which participants feel they have experienced growth. Participants were asked to rate 21 areas that are sometimes reported to change after traumatic events from 0 (I did not experience this change as a result of my crisis) to 5 (A very great degree as a result of my crisis). Intermediate scale anchors are 1 (I experienced this change to a very small degree), 2 (a small degree), 3 (a moderate degree), and 4 (a great degree). Participants rated their growth in the five areas of relating to others, identifying new possibilities, personal strength, spiritual change, and appreciation of life. Total scores ranged from 0 to 105, with scores below 60 indicating a low level of growth, scores between 60 and 79 indicating a moderate level

of growth, and scores 80 or above indicating a high level of growth (Tedeschi & Calhoun, 1996).

SSCS

Short Scale of Creative Self (SSCS) is an instrument measuring trait-like creative self-efficacy and creative personal identity. It has demonstrated a high reliability and internal consistency of both sub-scales (Karwowski et al., 2018). Participants were asked to rate 11 items on a scale from 1 (definitely not) to 5 (definitely yes), on a 5-point Likert scale. SSCE items may be scored by averaging all 11 items or averaging items 3, 4, 5, 6, 8, and 9 for creative self-efficacy (CSE), and 1, 2, 7, 10, and 11 for creative personal identity (CPI).

PISC-S

The PISC-S is a short version of the Professional Identity Scale in Counseling, which was distilled from 62 to 16 items, across four factors are Professional Knowledge (PK), Professional Competency (PC), Attitude toward Profession (AP), and Engagement in Counseling Profession (EP) (H. Woo et al., 2018). These factors are based on findings in the counseling literature and alignment with CACREP (2016) standards. Correlations among factors on the PISC-S ranged from .31 to .51. Internal reliabilities (based on Ponterotto and Ruckdeschel, 2007, as cited in H. Woo et al., 2018) were .85 (excellent), .74 (moderate), .72 (moderate), and .76 (good), respectively, with good discriminant validity. Participants rated 16 items on a scale of 1 (not at all in agreement) to 6 (totally in agreement) on a 6-point Likert type scale.

Procedure

Data were collected on QualtricsXM ($n = 116$ recorded responses) from November 18, 2021 to December 15, 2021. Responses were exported to Microsoft Excel for cleaning. Listwise deletion was used in regression analysis, so any incomplete data sets were removed from consideration. Complete data sets ($n = 116$) were analyzed using JASP Team (2020) for multiple regression, and the XLSTAT (Addinsoft, 2022) package for Microsoft Excel, for canonical correlation analysis.

A stepwise regression analysis using JASP Team (2020) allowed for an examination of each variable in isolation, through the creation of plots, as well as a frequency distribution for each variable independently. The main effect multiple-regression model allowed for a significance test of the difference between the R-squared values. After this, the data was analyzed to determine the practical significance of each correlational relationship. At each step, the criterion variable of creative self-concept (as measured using the SSCS) was entered first, followed by each of the predictor variables in turn, to determine the increase in R and Multiple R at each step. Stepwise criteria for probability to enter was set at $p \leq .050$, and probability of p to remove at $p = >.100$, as this is the standard. Assumptions testing ruled out multicollinearity using the Variance Inflation Factor (VIF) and tolerance analysis. A Canonical Correlation Analysis using XLSTAT (Addinsoft, 2022) package for Microsoft Excel (Sherry & Henson, 2005) was also conducted.

Data analysis

A canonical correlation analysis (CCA) was conducted to explore the relationship between a composite of the predictor variables of neuroscience-knowledge and past trauma, and a composite of the criterion variables of compassion satisfaction, burnout, secondary traumatic stress, and post-traumatic growth. Analysis was completed using XLSTAT (Addinsoft, 2022) with the alpha level set at a standard $\alpha = .05$. CCA advantages include a reduced likelihood of Type 1 error, as only one test is performed which simultaneously compares variables, thus reducing the test-wise error rate. Additionally, the data table was analyzed to determine the practical significance of each individual, correlational relationship as shown in the correlation matrix.

A stepwise multiple regression was conducted using JASP Team (2020) to examine the relationships among the predictor variables of creative self-efficacy, as it related to the criterion variables of Post-traumatic Growth (compassion satisfaction, compassion fatigue, and burnout) and Professional Identity Resilience. At each step, the criterion variable was entered first, followed by each of the predictor variables, to determine the increase in R and Multiple R at each step. Stepwise criteria for probability to enter were set at $p \leq .050$, and probability of p to remove $p = >.100$, as this is the standard.

Results

Participant characteristics

Participants ($n = 116$) completed an anonymous, self-report questionnaire, which included study assessments (Table 1). It is notable that the majority of participants identified as being affiliated with CACREP institutions ($n = 74$) with counseling degrees ($n = 85$). The majority of participants identified as white (88%) female (92%), with a mean age of 46 years, and of 13.90 years in practice.

The descriptive data in Table 2 indicates the participant pool average for each of the measures used in this study, in addition to the overall years of practice for participants ($N = 12$). This descriptive data may be the most notable aspect of the results of this study, as it details that the average number of trauma content or events experienced by the participant pool was 21.726. PTGI score averages of 45.45 are also interesting, as the PTGI indicates that any score below a 60 describes a low level of post-traumatic growth overall (Tedeschi & Calhoun, 1996). Previous research has indicated a positive connection between levels of post-traumatic growth and experienced trauma, or the coexistence of continued personal distress and personal growth which was not supported by this data (Tedeschi & Calhoun, 1995, 1996).

Canonical correlation analysis

The CCA contained linear combinations of the variables within each set and between sets. Table 3 lists the summary statistics for each individual pair of correlations. Notable correlations include the 0.764 between the SSCS Subscales of CSE and CPI. This high correlation is expected given that the two variables are subscales of the overall SSCS creativity measure. Aside from this, two other notable correlations were indicated between CSE and PISC scores, and CPI and PISC, with limited, positive correlations of 0.25 and 0.27,

Table 1. Demographic Information.

Age	Sex/Gender	Race/Ethnicity	Years Practice	Degree Type	Highest Degree	Professional License	CACREP
Mean = 46.20 SD = 12.32	Male = 8 Female = 108 Non-binary = 3 Trans-man = 1 Prefer not to say = 1	White = 103 Black/African American = 8 Native American = 6 Middle Eastern = 1 Mixed Race = 1 Hispanic/Latin American = 6 Other = 1	Mean = 13.90 SD = 10.15	Counseling/MHC = 77 School Counseling = 8 Marriage & Family = 5 Social Work = 12 Psychology = 9 Other = 6	Master's = 88 Doctorate = 29	ACMHC = 1 AMFT = 1 LCMHC = 19 LCPC/LPC = 53 LPC-S = 6 LCSW = 12 MFT = 4 Psychologist = 1 RPT-S = 2 School counselor = 1 Unlicensed = 5	YES = 74 No = 28 Not sure = 15

Table 2. Descriptive data by assessment.

SSCS Total	SSCS-CSE	SSCS-CPI	PISC	PTGI	LEC-5	Years Practice
45.6581197	25.376068	20.282051	73.04274	45.45299	21.7265	12

Table 3. Correlation matrix.

Variables	LEC5	Years Practice	CACREP	PISC	PTGI	CSE Ave	CPI Ave
LEC5	1						
Years Practice	-0.139	1					
CACREP?	0.040	-0.096	1				
PISC	0.175	-0.041	0.234	1			
PTGI	0.168	-0.021	0.111	0.160	1		
CSE Ave	0.008	0.068	0.164	0.250	0.017	1	
CPI Ave	0.079	0.068	0.167	0.270	0.143	0.764	1

respectively. Lastly, a limited positive correlation of 0.234 is indicated between PISC scores and participant CACREP affiliation.

Discussion

The purpose of this study was to address current gaps in the literature related to creative self-concept, post-traumatic growth, and professional identity resilience in counselors. While previous research and practice suggest shared characteristics of creative self-concept and post-traumatic growth (Gladding, 2016; Liang et al., 2020), the results of this current study found no significant relationships between individuals, nor composites of factors measured in this sample of counselors. However, previous research has found that mental health professionals with higher levels of experienced trauma have lower levels of self-efficacy (Sartor, 2016). This study suggests that experienced trauma may not impact creative self-efficacy, especially due to the lack of correlation, and generally high levels of trauma (21.7265 incidences). While not directly the focus of this research, it is important to reiterate that high levels of trauma, including vicarious trauma, are of practical concern to the field of counseling. It is important for counselors and supervisors to monitor counselor wellness in order to ensure ethical practice. This includes examination of agency policies concerning caseload number, structure, as well as counselor impairment and remediation.

Small correlations were found between PISC and CSE (0.25), as well as PISC and CPI (0.27), suggesting some co-malleability throughout counselor development; previous literature indicates that both CSC (Lebuda et al., 2021) and PIC (H. R. Woo & Henfield, 2015) may be influenced by various socio-cultural considerations. Scores of CSC were also generally high, which may support previous suggestions that creatives may be drawn to the counseling profession (McRoberts, 2022). CSE and CPI are two creative self-beliefs (CSB) through which researchers describe creative confidence. This sense of confidence is integral to finding enjoyment in creating new interventions, producing new ideas, and creatively problem-solving (Ishiguro et al., 2022). While it is known that CSE tends to increase in Western adolescents, with some fluctuations (Karwowski, 2015), the correlation between CSE and PISC (0.25), as well as CPI and PISC (0.27), suggests that the cultivation of creative confidence may continue past adolescence, and potentially, throughout counselor development. Higher levels of education, years in the field, and CACREP affiliation did not

appear to be significant predictors of any of the other variables, suggesting that more subjective, socio-cultural factors, even among white women, may have a stronger influence over professional identity, creativity, and resilience.

The lack of correlation between participants' high trauma scores and CSE scores indicates that even counselors with high levels of trauma experiences may be able to harness their creative confidence in ways that are beneficial to the self-work that the field requires. According to Thomas and Morris (2017), there remains a disconnect between counselor knowledge of the need for self-care and follow through with self-care practices. The cultivation of creative confidence, through additional methods of creative self-care development, may assist developing counselors, or even veteran counselors, with maintaining ethical practice, and nourishing their own individual needs. Creative self-efficacy may assist in the reduction of transference onto clients, as well as counselor burnout leading to the inability to truly sit with and listen to clients' struggles.

From this perspective, the correlation between creative self-efficacy and professional identity, as well as creative personal identity and professional identity, indicates that creative confidence and professional pride may be intertwined. While the field of counseling continues to work toward a more unified profession with a shared professional identity (Burns & Cruikshanks, 2018), it is unclear whether this push toward unification has led to a more cohesive sense of professional identity among professional counselors nor has the concept of creative confidence been noted as a potential method for increasing professional identity coherence. Given that many counselor preparation programs, as well as professional counseling organizations rely on CACREP, and CACREP (2016) standards to strengthen counselor identity development and ensure quality care for clients (Engels & Bradley, 2001; Mascari & Webber, 2013), it is suggested that the field strongly consider ways to increase the development of creative confidence into its framework for counselor identity development. In combination with other notable characteristics of successful counselors including broaching, curiosity, cultural humility, social justice, as well as religious and spiritual competence (Ratts et al., 2015; Rhodes, 2022; Robertson, 2010), counselor identity development may grow to include more of the personal component necessary for counselors to support their wholistic wellness through creative, spiritual, and moral autonomy while maintaining ties to professional identity. Utilizing experiential activities has recently been recommended as a method to integrate multicultural understanding into the ethical decision-making process (Parker et al., 2021).

Recommendation for future research

This study raises further questions and provides evidence of the need for deeper exploration in the areas of creative cognition and counselor professional identity development. There remains limited research on creativity and the impact of trauma on counselors, as well as to what extent this relationship may be a focus of counselor education and supervision. Additional quantitative studies could directly compare creative self-concept and self-concept in general, in counselors who have experienced trauma both with and without treatment. Further research could explore additional aspects of creativity, both quantitatively and qualitatively, in general, and other specific areas of the counselor population such as the factors that may contribute to the cultivation of creative confidence.

The cognitive distinctions between CSC versus PTG could also be further explored. Also, types and number of traumatic experiences a counselor, possible implications, advocacy

needs, and policy development to foster counselor wellness could be further explored. How do counselors conceptualize creative cognition in their work? How exactly does creativity in counseling and education function, and what steps can be taken to further support it? Perhaps, answers may be found in exploring aspects of autobiographical reasoning versus remembering, the personal versus professional in counselor identity development, or spiritual perceptions of creativity. Previous research suggests that while even the same regions of the brain may be activated, nuance of personal narratives may vary when meaning making (D'Argembeau et al., 2014). Specific socio-cultural considerations, even among white women, who make up the majority of the counselor population, have yet to be deeply and meaningfully analyzed.

Though the importance of creativity is well documented and validated (Fancourt & Finn, 2019), there remains a stigma against it, and creative identity theory is still in flux. Creative self-efficacy is thought to work in tandem with a high value of creativity in order to produce successful outcomes (Karwowski & Beghetto, 2019). Barriers exist to allowing space for creativity to flourish in education, counseling, and supervision (Center for Disease Control and Prevention, 2019, Curtin & Heron, 2019; Donald et al., 2015), including the *prescriptive rigidity* of traditional talk therapy (Petchkovsky et al., 2013, p. 425). Previous research has suggested that creatives may be more drawn to practice Jungian oriented therapies (Arthur, 2001; McRoberts, 2022; Weiss, 1973), which could be better supported and represented in the field (Roesler, 2013). Additional advocacy is needed to support creativity research, in all of its cognitive and emotional complexity (Silvia, 2017) and to raise awareness and the value of creativity in counseling.

Limitations of the study

Self-report measures are both the most widely used and highly criticized in the mental health field. Though “research demonstrates that self-report is a valuable (and valid) measure of cognitive products, plans, emotions, attitudes, and other constructs that are perceptual in nature” (Haefel & Howard, 2010, p. 185), self-report may be considered, perhaps misguidedly, less objective than other methods. Valid measures of constructs depend upon contextual use, and predictive factors may ultimately be of more interest than the individual construct. However, creativity researchers have noted that people may underestimate their own creativity (Licuanan et al., 2007) and hold bias against creativity (Sidi et al., 2020).

While the invitation to participate in the study did not have the word *creativity* in the title, in attempts to mitigate bias for/against the word, the word was in the description to disclose the ACC funding source; stating that the focus was on *resilience* may have attracted counselors with a certain propensity toward the concept. Counselors were also not asked if they considered the counseling profession *creative*.

It may be considered a practical limitation of this research that client outcomes were also not included. Previous and ongoing research does suggest that various factors of caseloads may impact counselors personally and professionally. However, the person-of-the-therapist may also be a specific area of study, independent of client outcomes.

Specific populations of counselors, or specializations in counseling, were not studied, which may impact generalizability. The study design did not include questions regarding whether the participant population had received any form of counseling treatment which may have already addressed previous trauma. While generally reflective of the provider population in America (Zippia, 2021), the majority of

participants in this study were white women, which the authors acknowledge continues to marginalize minorities, seen here as an ongoing limitation in the field.

In addition, this survey was presented online during the COVID-19 pandemic, which may have added additional and unforeseen stressors on participants both personally and professionally (Hall et al., 2022; Taylor et al., 2017).

Conclusion

This study is the first of its kind to compare aspects of creative self-concept, post-traumatic growth, and professional identity resilience in counselors. While the literature suggests strong correlations, the data here reflect otherwise. However, it is still recognized that each of these factors are independently important and not easily defined, let alone quantified. Perhaps creativity's essence, if one can be found and agreed upon, is a subjective, *happening of truth* (Huttunen & Kakkori, 2020, p. 611) more befitting a qualitative approach to inquiry. The numinous experience of creation as well as the felt sense of emotion has long resisted a strict and universal definition, and some aspects have remained in the realm of the spirit (Otto, 1918/1923). Methods of conceptualizing and integrating aspects of creative meta-cognition into counselor training have not been fully explored. Creative problem solving can begin with two assumptions: 1. Everyone is creative in some way, and 2. While that potential may need to be “unlocked and harnessed,” it can be developed and supported (Creative Education Foundation, 2015, p. 6). New questions have arisen about what aspects of creativity may positively impact post-traumatic growth as well as what may bolster the resiliency of creative self-efficacy in counselors. What this concept means within the broader context of counselor development, effectiveness, and wellness, though, remains to be seen.

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References

- Addinsoft. (2022). XLSTAT. [Computer software]. <https://www.xlstat.com/en/>
- Alcaro, A., & Carta, S. (2019). The “Instinct” of imagination. A neuro-ethological approach to the evolution of the reflective mind and its application to psychotherapy. *Frontiers in Human Neuroscience*, 12, 12. <https://doi.org/10.3389/fnhum.2018.00522>

- Arthur, A. R. (2001). Personality, epistemology and psychotherapists' choice of theoretical model: A review and analysis. *European Journal of Psychotherapy, Counselling and Health*, 4(1), 45–64. <https://doi.org/10.1080/13642530110040082>
- Association for Spiritual, Ethical, and Religious Values in Counseling. (2022). *Competencies for Addressing Spiritual and Religious Issues in Counseling*. <https://aservic.org/spiritual-and-religious-competencies/>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Beghetto, R. A., & Karwowski, M. (2018). Unfreezing creativity: A dynamic micro-longitudinal approach. In *Dynamic perspectives on creativity: New directions for theory, research, and practice in education* (pp. 7–25). Springer. https://doi.org/10.1007/978-3-319-99163-4_2
- Benedek, M., Beaty, R., Jauk, E., Koschutnig, K., Fink, A., Silvia, P. J., Dunst, B., & Neubauer, A. C. (2014). Creating metaphors: The neural basis of figurative language production. *NeuroImage*, 90, 99–106. <https://doi.org/10.1016/j.neuroimage.2013.12.046>
- Boyratz, G., Granda, R., Baker, C. N., Tidwell, L. L., & Waits, J. B. (2016). Posttraumatic stress, effort regulation, and academic outcomes among college students: A longitudinal study. *Journal of Counseling Psychology*, 63(4), 475–486. <https://doi.org/10.1037/cou0000102>
- Brinck, I., & Liljenfors, R. (2013). The developmental origin of metacognition. *Infant and Child Development*, 22(1), 85–101. <https://doi.org/10.1002/icd.1749>
- Brockhouse, R., Msetfi, R. M., Cohen, K., & Joseph, S. (2011). Vicarious exposure to trauma and growth in therapists: The moderating effects of sense of coherence, organizational support, and empathy. *Journal of Traumatic Stress*, 24(6), 735–742. <https://doi.org/10.1002/jts.20704>
- Brooks, T. P. (2015). *How therapy affects the counselor: Development through play therapy practice and supervision* (Doctoral dissertation). https://trace.tennessee.edu/utk_graddiss/3561
- Burns, S. T., & Cruikshanks, D. R. (2018). Independently licensed counselors' connection to CACREP and state professional identity requirements. *The Professional Counselor*, 8(1), 29–45. <https://doi.org/10.15241/stb.8.1.29>
- Center for Disease Control and Prevention. (2019). *Data and Statistics on Children's Mental Health*. <https://www.cdc.gov/childrensmentalhealth/data.html>
- Council for the Accreditation of Counseling and Related Educational Programs (CACREP). (2016). 2016 CACREP standards. <https://www.cacrep.org/for-programs/2016-cacrep-standards/>
- Council for the Accreditation of Counseling and Related Educational Programs (CACREP). (2018). Annual report. www.CACREP.org
- Creative Education Foundation. (2015). *Creative Problem Solving Resource Guide*. <http://www.creativeeducationfoundation.org/wp-content/uploads/2015/06/CPS-Guide-6-3-web.pdf>
- Curtin, S. C., & Heron, M. (2019). Death rates due to suicide and homicide among persons aged 10–24: United States, 2000–2017. National Center for Health Statistics, Data Brief, No. 352. <https://www.cdc.gov/nchs/products/index.htm>
- D'Argembeau, A. D., Cassol, H., Phillips, C., Baiteau, E., Salmon, E., & Van der Linden, M. (2014). Brains creating stories of selves: The neural basis of autobiographical reasoning. *Social Cognitive and Affective Neuroscience*, 9(5), 646–652. <https://doi.org/10.1093/scan/nst028>
- Donald, E. J., Culbreth, J. R., & Carter, A. W. (2015). Play therapy supervision: A review of the literature. *International Journal of Play Therapy*, 24(2), 59–77. <https://doi.org/10.1037/a0039104>
- Engels, D. W., & Bradley, L. J. (2001). Advocacy for the counseling profession. In D. C. Locke, J. E. Myers, & E. L. Herr (Eds.), *The handbook of counseling* (pp. 91–106). Sage.
- Fancourt, D., & Finn, S. (2019). What is the evidence on the role of the arts in improving health and well-being? A scoping review. WHO Regional Office for Europe. (Health Evidence Network (HEN) synthesis report 67). <https://apps.who.int/iris/bitstream/handle/10665/329834/9789289054553-eng.pdf?fbclid=IwAR1LMeOvkGPZxzCBctOMfKzbxRxLy3-CERPgfc-cm-UOy-D3G6q6-ukzvWY>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>

- Franks, D. D. (2003). Mutual interests, different lenses: Current neuroscience and symbolic interaction. *Symbolic Interaction*, 26(4), 613–630. <https://doi.org/10.1525/si.2003.26.4.613>
- Gladding, S. (2016). *The creative arts in counseling* (5th ed.). American Counseling Association. <https://doi.org/10.1002/9781119291961>
- Granello, D. H. (2010). Cognitive complexity among practicing counselors: How thinking changes with experience. *Journal of Counseling & Development*, 88(1), 92–100. <https://doi.org/10.1002/j.1556-6678.2010.tb00155.x>
- Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric properties of the life events checklist. *Assessment*, 11(4), 330–341.
- Haefffel, G. J., & Howard, G. S. (2010). Self-report: Psychology's four-letter word. *The American Journal of Psychology*, 123(2), 181–188. <https://doi.org/10.5406/amerjpsyc.123.2.0181>
- Hall, K., Pitt, A., Pope, E., Goddard, A., Howe, E., Upton, S., & Tsapas, T. (2022). What was it like to deliver psychotherapy during the COVID-19 pandemic? Understanding therapists' perspectives using a phenomenological collaborative writing approach. *The Qualitative Report*, 27(1), 131–142. <https://doi.org/10.46743/2160-3715/2022.5241>
- Hash, P. (2021). Therapeutic effects of expressive arts curriculum in composition courses. *Journal of Creativity in Mental Health*, 16(3), 374–409. <https://doi.org/10.1080/15401383.2020.1848679>
- Huttunen, R., & Kakkori, L. (2020). Heidegger's theory of truth and its importance for the quality of qualitative research. *Journal of Philosophy of Education*, 54(3), 600–616. <https://doi.org/10.1111/1467-9752.12429>
- Ishiguro, C., Sato, Y., Takahashi, A., Abe, Y., Kato, E., & Takagishi, H. (2022). Relationships among creativity indices: Creative potential, production, achievement, and beliefs about own creative personality. *PLoS ONE*, 17(9), e0273303.
- JASP Team. (2020). JASP (Version 0.14). [Computer software]. <https://jasp-stats.org>
- Jung, C. G. 1960. Psychological factors determining human behavior In H. Read. Ed. *The collected works of C.G. Jung: Structure & dynamics of the psyche* Vol. 8pp. 157–172. R.F.C. Hull, Trans.). Princeton University Press. Original work published 1936.
- Kaimal, G. 2022. Creative self-expression by ourselves and with others. In G. Kaimal Ed. 2022. *The expressive instinct: How imagination and creative works help us survive and thrive*. 115.Oxford Academic. <https://doi.org/10.1093/oso/9780197646229.001.0001>.
- Karwowski, M. (2012). Did curiosity kill the cat? Relationship between trait curiosity, creative self-efficacy and creative personal identity. *Europe's Journal of Psychology*, 8(4), 547–558. <https://doi.org/10.5964/ejop.v8i4.513>
- Karwowski, M. (2015). Peer effect on students' creative self-concept. *The Journal of Creative Behavior*, 49(3), 211–225. <https://doi.org/10.1002/jocb.102>
- Karwowski, M., & Beghetto, R. A. (2019). Creative behavior as agentic action. *Psychology of Aesthetics, Creativity, and the Arts*, 13(4), 402–415. <https://doi.org/10.1037/aca0000190>
- Karwowski, M., Lebuda, I., & Wiśniewska, E. (2018). Measuring creative self-efficacy and creative personal identity. *The International Journal of Creativity & Problem Solving*, 28(1), 45–57. <https://psycnet.apa.org/record/2018-59236-003>
- Kauffman, J. C., & Beghetto, R. A. (2009). Beyond big and little: The four c model of creativity. *Review of General Psychology*, 13(1), 1–12. <https://doi.org/10.1037/a0013688>
- Kubany, E. S., Leisen, M. B., Kaplan, A. S., Watson, S. B., Haynes, S. N., Owens, J. A., & Burns, K. (2000). Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The Traumatic Life Events Questionnaire. *Psychological Assessment*, 12(2), 210.
- Lebuda, I., Zielin'ska, A., & Karwowski, M. (2021). On surface and core predictors of real-life creativity. *Thinking Skills and Creativity*, 42, 1–15. <https://doi.org/10.1016/j.tsc.2021.100973>
- Liang, Y., Zheng, H., Cheng, J., Zhou, Y., & Liu, Z. (2020). Associations between posttraumatic stress symptoms, creative thinking, and trait resilience among Chinese adolescents exposed to the Lushan earthquake. *Journal of Creative Behavior*, 55(2), 362–373. <https://doi.org/10.1002/jocb.460>
- Licuanan, B. F., Dailey, L. R., & Mumford, M. D. (2007). Idea evaluation: Error in evaluating highly original ideas. *The Journal of Creative Behavior*, 41(1), 1–27. <https://doi.org/10.1002/j.2162-6057.2007.tb01279.x>

- Mascari, J. B., & Webber, J. (2013). CACREP accreditation: A solution to license portability and counselor identity problems. *Journal of Counseling & Development, 91*(1), 15–25. <https://doi.org/10.1002/j.1556-6676.2013.00066.x>
- Matise, M., Ratcliff, J., & Mosci, F. (2018). A working model for the integration of spirituality in counseling. *Journal of Spirituality in Mental Health, 20*(1), 27–50. <https://doi.org/10.1080/19349637.2017.1326091>
- McRoberts, R. (2022). Addressing the creativity crisis: Sandplay therapists' mode shifting and professional identity development. *Journal of Sandplay Therapy, 31*(2), 129–142. <https://www.sandplay.org/journal/abstracts/volume-31-number-2-2022/mcroberts-rachel-addressing-the-creativity-crisis-sandplay-therapists-mode-shifting-and-professional-identity-development/>
- Miller, A. L., & Dumford, A. D. (2016). Creative cognitive processes in higher education. *The Journal of Creative Behavior, 50*(4), 282–293. <https://doi.org/10.1002/jocb.77>
- Nissen-Lie, H. A., Rønnestad, M. H., Høglend, P. A., Havik, O. E., Solbakken, O. A., Stiles, T. C., & Monsen, J. T. (2017). Love yourself as a person, doubt yourself as a therapist? *Clinical Psychology and Psychotherapy, 24*(1), 48–60. <https://doi.org/10.1002/cpp.1977>
- Otto, R. (1923). *The idea of the holy: An inquiry into the non-rational factor in the idea of the divine and its relation to the rational*. Original work published 1918. Oxford University Press.
- Panskepp, J., & Biven, L. (2012). *The archaeology of mind: Neuroevolutionary origins of human emotions*. WW Norton & Company.
- Parker, M. M., Attia, M., & Lee, K. (2021). Utilizing experiential activities to facilitate multicultural understanding within ethical decision-making. *Journal of Creativity in Mental Health, 17*(4), 533–545. <https://doi.org/10.1080/15401383.2021.1921645>
- Perryman, K., Blisard, P., & Moss, R. (2019). Using creative arts in trauma therapy: The neuroscience of healing. *Journal of Mental Health Counseling, 41*(1), 80–94. <https://doi.org/10.17744/mehc.41.1.07>
- Perry, B. D., Pollard, R. A., Blaicley, T. L., Baker, W. L., & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation and “use dependent” development of the brain: “States” become “traits”. *Infant Mental Health Journal, 16*(4), 271–291. doi:[https://doi.org/10.1002/1097-0355\(199524\)16:4<271:AID-IMHJ2280160404>3.0.CO;2-B](https://doi.org/10.1002/1097-0355(199524)16:4<271:AID-IMHJ2280160404>3.0.CO;2-B)
- Petchkovsky, L., Petchkovsky, M., Morris, P., Dickson, P., Montgomery, D., Dwyer, J., & Burnett, P. (2013). fMRI responses to Jung's word association test: Implications for theory, treatment and research. *The Journal of Analytical Psychology, 58*(3), 409–431. <https://doi.org/10.1111/1468-5922.12021>
- Ponterotto, J. G., & Ruckdeschel, D. E. (2007). An overview of coefficient alpha and a reliability matrix for estimating adequacy of internal consistency coefficients with psychological research measures. *Perceptual and Motor Skills, 105*(3), 997–1014.
- Pringle, A., & Sowden, P. T. (2017). The Mode Shifting Index (MSI): A new measure of the creative thinking skill of shifting between associative and analytic thinking. *Thinking Skills and Creativity, 23*, 17–28. <https://doi.org/10.1016/j.tsc.2016.10.010>
- Qualtrics. (2020). Qualtrics XM. Version October 2020. Qualtrics.
- Ratts, M. J., Singh, A. A., Nassar McMillan, S., Kent Butler, S., & Rafferty McCollough, J. (2015). Multicultural and social justice counseling competencies: Guidelines for the counseling profession. *Journal of Multicultural Counseling and Development, 44*(1), 28–48. <https://doi.org/10.1002/jmcd.12035>
- Rhodes Phillips, S. (2022). Deconstructing the genogram: A tentative proposal. *Australian and New Zealand Journal of Family Therapy, 43*(3), 333–345. <https://doi.org/10.1002/anzf.1504>
- Ribot, T., & Baron, A. H. N. (1906). The emotional factor. In *Essay on the creative imagination* (pp. 31–49). Open Court Publishing Co. <https://doi.org/10.1037/13773-003>
- Robertson, L. A. (2010). The spiritual competency scale. *Counseling and Values, 55*(1), 6–24. <https://doi.org/10.1002/j.2161-007X.2010.tb00019.x>
- Roesler, C. (2013). Evidence for the effectiveness of Jungian psychotherapy: A review of empirical studies. *Behavioral Sciences, 3*(4), 562–575. PMID: 25379256; PMCID: PMC4217606. <https://doi.org/10.3390/bs3040562>.
- Rozentsvit, I. (2016). The post-traumatic growth: The wisdom of the mind, its clinical and neuropsychanalytic vicissitudes. *European Psychiatry, 33*(S1), S568. <https://doi.org/10.1016/j.eurpsy.2016.01.2105>

- Sartor, T. A. (2016). Vicarious trauma and its influence on self-efficacy. *Ideas and Research You Can Use: VISTAS* 2016, 27, 1–13. https://www.counseling.org/docs/default-source/vistas/article_2721c024f16116603abcacff0000bee5e7.pdf?sfvrsn=6
- Schillirò, C. (1988). La Pulsione creativa Arte come terapia = the creative instinct: Art as therapy. *Giornale Storico Di Psicologia Dinamica*, 12(23), 92–128.
- Shaw, A., Kapnek, M., & Morelli, N. A. (2021). Measuring creative self-efficacy: An item response theory analysis of the creative self-efficacy scale. *Frontiers in Psychology*, 12, 678033. <https://doi.org/10.3389/fpsyg.2021.678033>
- Sherry, A., & Henson, R. K. (2005). Conducting and interpreting canonical correlation analysis in personality research: A user-friendly primer. *Journal of Personality Assessment*, 84(1), 37–48. https://doi.org/10.1207/s15327752jpa8401_09
- Sidi, Y., Torgovitsky, I., Soibelman, D., Miron-Spektor, E., & Ackerman, R. (2020). You may be more original than you think: Predictable bias in self-assessment of originality. *Acta Psychologica*, 203, 103002–103038. <https://doi.org/10.1016/j.actpsy.2019.103002>
- Silvia, P. J. (2017). Building institutions for the next 50 years of creativity research. *The Journal of Creative Behavior*, 51(4), 345–347. <https://doi.org/10.1002/jocb.194>
- Stamm, B. H. (2010). *The concise ProQOL manual* (2nd ed.). ProQOL.org.
- Taylor, S., Landry, C. A., Paluszek, M. M., Fergus, T. A., McKay, D., & Asmundson, G. J. G. (2017). COVID stress syndrome: Concept, structure, and correlates. *Anxiety and Depression Association of America*, 37(8), 706–714. <https://doi.org/10.1002/da.23071>
- Tedeschi, R. G., & Calhoun, L. G. (1995). *Trauma and transformation*. Sage.
- Tedeschi, R. G., & Calhoun, L. G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455–471. <https://doi.org/10.1002/jts.2490090305>
- Thomas, D. A., & Morris, M. H. (2017). Creative counselor self-care. Ideas and research you can use: VISTAS. <https://www.counseling.org/knowledge-center/vistas/by-subject2/vistasprofessional-development/docs/default-source/vistas/creativecounselor-self-caredevelopment/docs/default-source/vistas/creativecounselor-self-care>
- U.S. Department of Veterans Affairs (2019). National Center for PTSD: PTSD Checklist for DSM-V. Retrieved from <https://www.ptsd.va.gov/professional/assessment/adult-sr/ptsdchecklist>. Retrieved from.
- Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013). *The Life Events Checklist for DSM-5 (LEC-5)*. The National Center for PTSD at www.ptsd.va.gov.
- Weathers, F., Huska, J., & Keane, T. (1991). *The PTSD checklist military version (PCL-M)*. National Center for PTSD.
- Weiss, S. L. (1973). Differences in goals, interests, and personalities between students with analytic and behavior therapy orientations. *Professional Psychology*, 4(2), 145–150. <https://doi.org/10.1037/h0034797>
- Wiersma, J. K., Freedle, L. R., McRoberts, R., & Solberg, K. B. A meta-analysis of sandplay therapy treatment outcomes. (2022). *International Journal of Play Therapy*, 31(4), 197–215. Advance online publication. <https://doi.org/10.1037/pla0000180>
- Wilkinson, T. (2011). Increasing counselor self-awareness: The role of cognitive complexity and meta-cognition in counselor training programs. *Alabama Counseling Association Journal*, 37(1), 24–32.
- Woo, H. R., & Henfield, M. S. (2015). Professional Identity Scale in Counseling (PISC): Instrument development and validation. *Journal of Counselor Leadership & Advocacy*, 2(2), 93–112. <https://doi.org/10.1080/2326716X.2015.1040557>
- Woo, H., Lu, J., & Bang, N. (2018). Professional Identity Scale in Counseling (PISC): Revision of factor structure and psychometrics. *Journal of Counselor Leadership & Advocacy*, 5(2), 137–152. <https://doi.org/10.1080/2326716X.2018.1452078>
- Yager, G. G., & Tover-Blank, Z. G. (2007). Wellness and counselor education. *Journal of Humanistic Counseling, Education & Development*, 46(2), 142–153. <https://doi.org/10.1002/j.2161-1939.2007.tb00032>
- Zippia. (2021). Mental health professional demographics. <https://www.zippia.com/therapist-jobs/demographics/>