



2025

Volume: 10/Number: 2
eISSN: 2458-9675

Spiritual Psychology and Counseling is an open access, on-line journal that aims to publish complete and reliable information on the discoveries and current developments in the fields of spirituality and spirituality-related issues within the context of psychological processes.

Authors bear responsibility for the content of their published articles.

Owner

Halil Ekşi (Marmara University, Türkiye)

Editor-In-Chief

Halil Ekşi (Marmara University; Türkiye)

Editors

Çınar Kaya (Kütahya Dumlupınar University, Türkiye)

Muhammed Çiftçi (Marmara University, Türkiye)

Selami Kardaş (Muş Alparslan University; Türkiye)

Osman Hatun (Sinop University; Türkiye)

English Language Editors

ENAGO (www.enago.com.tr)

International Editorial Board

- | | |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Osman Tolga Arıcak (Bogazici University; Türkiye) | Len Sperry (Florida Atlantic University; USA) |
| Hooman Keshavarzi (İbn Haldun University; Türkiye) | Üzeyir Ok (İbn Haldun University; Türkiye) |
| Fusun Ekşi (İstanbul Medeniyet University; Türkiye) | Macid Yılmaz (Hitit University; Türkiye) |
| Elias Capriles (Andes University; Venezuela) | W. Paul Williamson (Henderson State University; USA) |
| Manijeh Daneshpour (Alliant International University; USA) | Ömer Miraç Yaman (İstanbul University; Türkiye) |
| Sabnum Dharamsi (University of Bristol; UK) | Yusmini Binti Md. Yusoff (University of Malaya; Malaysia) |
| Bulent Dilmac (Necmettin Erbakan University; Türkiye) | Mustapha Achoui (International Islamic University; Malaysia) |
| Atılğan Erözkan (Muğla University; Türkiye) | Figen Akça (Uludağ University; Türkiye) |
| Robert Frager (Sofia University; USA) | Mehmet Atalay (İstanbul University; Türkiye) |
| Agustin de la Herran Gascón (Autonomous University of Madrid; Spain) | Azize Nilgün Canel (Marmara University; Türkiye) |
| Amber Haque (Michigan State University; USA) | Sevim Cesur (İstanbul University; Türkiye) |
| Elfie Hinterkopf (Private Practice; USA) | Tuğba Seda Çolak (Düzce University; Türkiye) |
| David Hodge (Arizona State University; USA) | Vincent Dummer (Appalachian Regional Hospital; USA) |
| Ralph W. Hood (University of Tennessee at Chattanooga; USA) | Harris L. Friedman (University of Florida; USA) |
| Hayati Hökelekli (Emeriturs) | Majeda Humeidan (Zayed University; UAE) |
| İbrahim Işıtan (Directorate of Religious Affairs Attaché of Religious Services in Paris; France) | Faruk Kanger (Sabahattin Zaim University; Türkiye) |
| Carrie York Al-Karam (University of Iowa; USA) | Ömer Karaman (Ordu University; Türkiye) |
| Mustafa Koç (Balıkesir University; Türkiye) | Nurten Kimter (Çanakkale Onsekiz Mart University; Türkiye) |
| Mustafa Merter (Private Practice; Türkiye) | Muhammed Kızılgeçit (Recep Tayyip Erdoğan University; Türkiye) |
| Judith Miller (Columbia University; USA) | S. K. Kiran Kumar (University of Mysore; India) |
| Mustafa Otrar (Minister of National Education; Türkiye) | Sezayî Küçük (Sakarya University; Türkiye) |
| Kenneth I. Pargament (Emeritus; Bowling Green State University; USA) | Brian L. Lancaster (Liverpool John Moores University; UK) |
| Sadeq Rahimi (Harvard Medical School; USA) | Emine Öztürk (Kafkas University; Türkiye) |
| Samuel Bendeck Sotillos (Institute of Traditional Psychology; USA) | Iker Puente (Autonomous University of Barcelona; Spain) |
| | Mualla Yıldız (Ankara University; Türkiye) |
| | Murat Yıldız (Cumhuriyet University; Türkiye) |
| | Christopher A. Sink (Western Washington University; USA) |

Board of Reviewing Editors

Osman Tolga Arıca (Bogazici University; Türkiye), Christopher A. Sink (Western Washington University; USA) Hooman Keshavarzi (İbn Haldun University; Türkiye), Füsun Ekşi (İstanbul Medeniyet University; Türkiye), Elias Capriles (Andes University; Venezuela), Manijeh Daneshpour (Alliant International University; USA), Sabnum Dharamsi (University of Bristol; UK), Bulent Dilmac (Necmettin Erbakan University; Türkiye), Atılğan Erözkan (Muğla University; Türkiye), Robert Frager (Sofia University; USA), Agustín de la Herrán Gascón (Autonomous University of Madrid; Spain), Amber Haque (Michigan State University; USA), Elfie Hinterkopf (Private Practice; USA), David Hodge (Arizona State University; USA), Ralph W. Hood (University of Tennessee at Chattanooga; USA), Hayati Hökelekli (Emeritus), İbrahim Işıtan (Directorate of Religious Affairs Attaché of Religious Services in Paris; France), Carrie York Al-Karam (University of Iowa; USA), Mustafa Koç (Balıkesir University; Türkiye), Mustafa Merter (Private Practice; Türkiye), Judith Miller (Columbia University; USA), Mustafa Otrar (Minister of National Education; Türkiye), Kenneth I. Pargament (Emeritus; Bowling Green State University; USA), Sadeq Rahimi (Harvard Medical School; USA), Samuel Bendeck Sotillos (Institute of Traditional Psychology; USA), Len Sperry (Florida Atlantic University; USA), Üzeyir Ok (İbn Haldun University; Türkiye), Macid Yılmaz (Hitit University; Türkiye), W. Paul Williamson (Henderson State University; USA), Ömer Miraç Yaman (İstanbul University; Türkiye), Yusmini Binti Md. Yusoff (University of Malaya; Malaysia), Mustapha Achoui (International Islamic University; Malaysia), Figen Akça (Uludağ University; Türkiye), Mehmet Atalay (İstanbul University; Türkiye), Azize Nilgün Canel (Marmara University; Türkiye), Sevim Cesur (İstanbul University; Türkiye), Tuğba Seda Çolak (Düzce University; Türkiye), Vincent Dummer (Appalachian Regional Hospital; USA), Harris L. Friedman (University of Florida; USA), Majeda Humeidan (Zayed University; UAE), Faruk Kanger (Sabahattin Zaim University; Türkiye), Ömer Karaman (Ordu University; Türkiye), Nurten Kimter (Çanakkale Onsekiz Mart University; Türkiye), Muhammed Kızılgöç (Recep Tayyip Erdoğan University; Türkiye), S. K. Kiran Kumar (University of Mysore; India), Sezai Küçük (Sakarya University; Türkiye), Brian L. Lancaster (Liverpool John Moores University; UK), Emine Öztürk (Kafkas University; Türkiye), Iker Puente (Autonomous University of Barcelona; Spain), Mualla Yıldız (Ankara University; Türkiye), Murat Yıldız (Cumhuriyet University; Türkiye)

Graphic Design

Nevzat Onaran
Semih Edis

Publishing Period

Triannual (February, June & October)

Online Publication

2025 June

Indexing and Abstracting

SPC is currently being indexed and/or abstracted in the following services:

APA PsycInfo®

CrossRef

Scopus

Directory of Open Access Journals (DOAJ)

EBSCO

The European Reference Index for the Humanities and the Social Sciences (ERIH PLUS)

ULRICHSWEB Global Serials Directory

Index Islamicus

Tr Dizin (ULAKBİM Social and Humanities Database Journal List)

Scientific Indexing Services (SIS) Database

Directory of Research Journals Indexing (DRJI)

Turkish Psychiatry Index

Turkish Education Index (TEİ)

ISAM Electronic Resources Database (Theology Articles Database)

Google Scholar

OCLC Worldcat

SciLit



Correspondence

Prof. Dr. Halil Ekşi

Marmara University, Atatürk Faculty of Education Department of Educational Sciences, Recep Tayyip Erdoğan Complex, Maltepe Campus, Building A2, Office No: 240, 34852/Maltepe - İstanbul, Türkiye

Phone: +90 (216) 777 2600 Web: <http://spiritualpc.net/> Email: editor@spiritualpc.net

Table of Contents

Research Article

The Turkish Adaptation of the Psychological Emptiness Scale: A Validity and Reliability Study	137
Çağla Girgin Büyükbayraktar	

Research Article

The Interplay of Mindfulness, Interoception, and Dual Emotions in Enhancing Psychological Well-being - Development of Heal-ty Life Spiritual Psychology Assessment Scale (HLSPAS).....	155
Azeem Dana, Pandiamani Sivam, Jabarali Abdul Kani, Sulukkana Noiprasert, Damodaran B	

Research Article

Navigating Faith in Clinical Practice: A Qualitative Study of Mental Health Professionals Working with Immigrant Clients.....	189
Sandra Dixon, Juliane Bell	

Research Article

Mental Health Literacy and Psychological Help-Seeking Attitudes among University Students: A Moderated Mediation Model of Distress Disclosure and Religiosity	229
Henry Samuel Edosomwan	

Research Article

The Monika Encounter: A Mixed Methods Study of a Techno-Based Ghostly Episode.....	257
Neil Dagnall, Ken Drinkwater, Giovanni B. Caputo, Lorraine Sheridan, James Houran	

Research Article

Predictors of Gaming Addiction Among University Students: Gender, Spiritual Well-Being, and Meaning in Life	297
İbrahim Taş, Ahmet Uğurlu	

Research Article

Exploring the Evil Eye Beliefs: A Quantitative Study	313
Kutlu Kağan Türkarıslan, Ekin Doğa Kozak	



The Turkish Adaptation of the Psychological Emptiness Scale: A Validity and Reliability Study

Çağla Girgin¹

Selcuk University

¹ Assoc. Prof., Social Work, Selcuk University, Beysehir Ali Akkanat School of Applied Sciences, Konya, Türkiye.
E-mail caglagirgin@selcuk.edu.tr

Corresponding author:

Çağla Girgin Büyükbayraktar

E-mail: caglagirgin@selcuk.edu.tr

eISSN: 2458-9675

Received: 19.11.2024

Revision: 06.02.2025

Accepted: 25.02.2025

©Copyright 2025 by Author(s)

Abstract

The current study aims to adapt the Psychological Emptiness Scale (PES) into Turkish and evaluate its psychometric properties to establish a valid and reliable measurement tool. Feelings of emptiness are linked to mental health issues and the risk of suicide; however, research on this phenomenon is still limited. The Confirmatory Factor Analysis (CFA) results supported a two-factor structure of the scale, consisting of “nothingness” and “detachment.” The fit indices ($\chi^2/df = 4.892$, RMSEA = .074, SRMR = .041, CFI = .925) and factor loadings (.567–.771) indicate a good model fit. Internal consistency values were $\alpha = .890$ for nothingness, $\alpha = .910$ for detachment, and $\alpha = .947$ for the total scale. Convergent validity analyses demonstrated significant correlations between the PES and factors such as loneliness ($r = .655$), borderline symptoms ($r = .792$), and life satisfaction ($r = -.568$). Additionally, skewness and kurtosis values suggested that the scale is appropriate for parametric analyses. The findings highlight the effectiveness of the PES as a tool for assessing psychological emptiness in individuals. Future studies are recommended to evaluate the scale in different samples and conduct cross-validation research.

Keywords:

Psychological emptiness • Measurement tool • Validity • Reliability • Turkish adaptation

Citation: Girgin, Ç. (2025).The Turkish adaptation of the Psychological Emptiness Scale: A validity and reliability study. *Spiritual Psychology and Counseling*, 10(2), 137–154. <http://doi.org/10.37898/spiritualpc.1587828>

Introduction

Psychological emptiness is a complex and distressing emotional state characterized by deep dissatisfaction, a sense of purposelessness, and feelings of loneliness. This condition can be observed in various psychiatric disorders, particularly borderline personality disorder, as well as depression, narcissistic personality disorder, and schizophrenia. It is also associated with non-suicidal self-injurious behaviors (D'Agostino et al., 2020). Deutsch (1942) defined psychological emptiness as “a state in which all inner experience is excluded” and described individuals who experience this feeling as moving through life lacking vital energy, much like a technically skilled actor who fails to bring the necessary spark to their performance.

These individuals are described as exhibiting a “chameleon-like” tendency, masking their inner emptiness by maintaining interpersonal adaptability and deceptiveness. Psychological emptiness can feel like a hunger that causes restlessness or leads to addictive behaviors. When this emptiness is combined with feelings of death, nothingness, meaninglessness, or isolation, it can create a persistent backdrop of depression. Sometimes, these feelings may arise sharply due to shame or loss, but they can also occur without any specific trigger. In severe cases, a sense of meaninglessness may dampen a person's sense of responsibility, pushing them toward an existential void. Significant childhood trauma may leave behind an “unnameable and inexpressible deep inner hell” (Wurmser, 2003).

Psychological emptiness is commonly associated with loneliness, uncertainty, hopelessness, helplessness, and disconnection in everyday language, often accompanied by self-harm or suicidal thoughts (Peteet, 2011; Blasco-Fontecilla et al., 2013). Meaninglessness is regarded as a core existential issue that adversely affects both psychological and physical well-being (Frankl, 2017). Existential psychologists such as Sartre, Rollo May, and Viktor Frankl have conceptualized this phenomenon as a consequence of modernity, whereas Jung associated psychological emptiness with structural fragmentation within the self (Duncan & Brooks-Gunn, 2000).

While existential emptiness reflects disruptions in one's relationship with life, psychological emptiness pertains to one's relationship with oneself. Additionally, existential emptiness is considered to have a more intellectual and spiritual dimension (Frankl, 2017; Hazell, 1984). The experience of emptiness is deeply distressing for many individuals, leading them to addictions, impulsive behaviors, or violence as a means of avoiding awareness. However, under suitable conditions, this experience may also provide an opportunity for freedom, personal growth, and spontaneity (Hazell, 1984). Contemporary expressions such as “My life has no meaning” illustrate the loss of life's purpose, which in turn drives individuals into emptiness, hopelessness, boredom, and apathy (Frankl, 2017).

Although there is evidence that the experience of emptiness can be observed across multiple diagnostic categories, the literature has predominantly conceptualized this phenomenon as a feature of Borderline Personality Disorder (BPD) (American Psychiatric Association [APA], 2013). However, Herron and Sani (2022) adopted a broader perspective, defining emptiness as a distressing and existential experience that manifests across various diagnostic groups.

The development of assessment tools for measuring psychological emptiness has been limited due to narrow conceptualizations in the literature. Emptiness has often been evaluated using single items embedded within BPD measures, thereby overlooking the complex phenomenological structure of this experience. For instance, instruments such as the Experienced Levels of Emptiness Scale, the Emptiness Scale, and the Sense of Emptiness Scale have primarily focused on individuals diagnosed with BPD (Blasco-Fontecilla et al., 2016; Hazell, 1984; Ermiş-Demirtaş, 2018; Herron et al., 2024).

To address these limitations, Price et al. (2022) created the Subjective Emptiness Scale, which views emptiness as a transdiagnostic experience. The scale showed high internal consistency, although its items were mainly derived from the experiences reported by individuals diagnosed with BPD.

In this context, the Psychological Emptiness Scale (PES), created by Herron et al. (2024), was designed using a broader sample and did not rely on a unidimensional structure. During the PES development, a definition of emptiness was established based on participants' lived experiences. This definition was further validated by a separate group of participants whose experiences closely matched the initial definition.

This study aims to adapt the Psychological Emptiness Scale for Turkish speakers and to conduct validity and reliability analyses. The adaptation of the scale is expected to enhance the multidimensional assessment of individuals' psychological emptiness and provide a reliable measurement tool for exploring its associations with psychological processes. To achieve this goal, the study will focus on ensuring the scale's linguistic and cultural adaptation, examining its structural validity, and evaluating its psychometric properties.

Method

Research Design

This study was designed according to measurement instrument development procedures, employing data collection and analysis methods suited to this framework. This study aimed to assess both linguistic and conceptual equivalence, as well as the

cultural adaptation of the measurement tool used during the scale adaptation process. Methodological studies involve systematic procedures that test how applicable a measurement tool is across different cultures or languages (Boateng et al., 2018). These studies utilize validity and reliability analyses to ensure that the measurement tools are accurate and consistent. This research examined construct validity, internal consistency, and convergent validity using Confirmatory Factor Analysis (CFA) and Cronbach's Alpha coefficient as statistical techniques (Field, 2018). In this study, all reporting procedures were conducted in accordance with the American Psychological Association (APA) Style. As emphasized in the APA Publication Manual, using clear, unbiased, and consistent language is essential in scientific writing. The manual aims to guide authors in selecting "titles, tables, figures, language, and style that ensure strong, concise, and elegant scientific communication" (APA, 2022). Therefore, all tables, references, and in-text citations in this article were formatted based on APA 7 guidelines.

Translation Process

Permission and Translation. The adaptation process of the scale began with obtaining permission from the original author (Herron et al., 2024). The first step of the adaptation process, translation, was carried out by two independent translators who were informed about the methodology of scale adaptation (Coster & Mancini, 2015).

One of the translators was provided with contextual information regarding the scale's cultural background, whereas the other was deliberately kept uninformed to ensure a natural and unbiased translation (Beaton et al., 2007). Both translators considered cultural, psychological, and linguistic differences between the source and target languages to ensure that the translation conformed to the grammar and cultural structure of the target language (Turkish) (International Test Commission [ITC], 2018). The scale was carefully adapted to maintain conceptual equivalence, with a particular focus on clarity and simplicity to enhance comprehensibility.

Semantic Equivalence and Integration of Translations. Following the translation process, each item on the scale was analyzed in terms of linguistic and cultural context. The sentence structure of the scale was adjusted to align with Turkish grammatical rules.

After completing the translation process, the independent translations produced by both translators were compared, and the researchers created a final unified version. During this process, semantic, idiomatic, conceptual, linguistic, and contextual differences between the translations were carefully evaluated. To enhance the clarity and comprehensibility of the scale, consensus was reached on the wording of the items. Sentences containing complex or difficult-to-understand expressions were simplified, whereas overly simplified translations were revised to ensure content accuracy (Borsa et al., 2012).

Back Translation. Once the final version of the scale was established, the back translation phase was initiated. Two independent translators, who had no prior involvement in the initial translation process, translated the final Turkish version of the scale back into the original language.

At this stage, the original scale and its back-translated version were compared, and each item was analyzed in detail to identify potential semantic shifts. Particular attention was given to ensuring that the back translation remained faithful to the original text while preserving the scale's cultural context (Cantürk Çapık, Gözüm, & Aksayan, 2018).

Expert Panel. To enhance the accuracy of the adaptation process, a panel of subject-matter experts was convened to evaluate the items of the scale. During the panel, the cultural and linguistic alignment of the scale was thoroughly reviewed to ensure its suitability for the target population. Additionally, the clarity and comprehensibility of the items were assessed from the perspective of the intended audience (Survey Research Center [SRC], 2016).

Pilot Study. The adapted scale was subjected to a pilot study with the target group. Throughout this process, we evaluated the scale's comprehensibility, ease of administration, and cultural appropriateness, making necessary revisions based on participant feedback (Borsa et al., 2012).

The pilot study was conducted with a group of 50 university students, whose ages ranged from 18 to 25. The study assessed the understandability of the scale, the time required for administration, and the cultural relevance of the items. During the pilot study, participants reported that some items were ambiguous, while certain expressions could be made more comprehensible in everyday language.

Based on this feedback, several items were revised to enhance linguistic and conceptual clarity. These changes were made to enhance the scale's validity, reliability, and psychometric properties, ensuring it is suitable for the target population. As a result of these systematic procedures, the scale was adapted both linguistically and culturally, strengthening the content validity of the Turkish version (Cantürk Çapık, Gözüm, & Aksayan, 2018).

Development of the Preliminary Turkish Version and Psychometric Evaluation. After completing all required revisions, the preliminary Turkish version of the scale has been finalized. The scale was administered to a nationwide sample of 710 participants in Turkey, and validity and reliability analyses were conducted. In the reliability analysis, the Cronbach's alpha coefficient was found to be 0.95, indicating high internal consistency.

Study Group

After obtaining ethical approval (Selçuk University Faculty of Education Ethics Committee Report, 10.07.2024-E.789472), data were collected using Google Forms. The inclusion criteria for participation were being over 18 years old and experiencing a sense of emptiness at any point in life. Individuals diagnosed with a severe mental disorder with psychotic features (such as schizophrenia, bipolar disorder, or schizoaffective disorder) or those who reported never having experienced emptiness were excluded from the study. Initially, participants were asked whether they had ever experienced emptiness, and following the definition provided by Herron and Sani (2022), emptiness was explained as a psychological experience. Participants who answered “yes” gave their written informed consent before taking part in the study. The study involved 710 individuals from 59 cities across Türkiye. Among the participants, 534 (75.2%) were women and 176 (24.8%) were men. In terms of age distribution, 397 participants (56.0%) were aged between 18 and 22 years, 139 participants (19.6%) were aged between 23 and 27 years, 53 participants (7.5%) were aged between 28 and 32 years, 33 participants (4.7%) were aged between 33 and 37 years, and 88 participants (12.3%) were aged between 38 and 62 years.

Measurement Instruments

At the beginning of the scale, participants were asked demographic questions regarding their age, gender, place of residence, and occupation. Following this, they were asked whether they had ever experienced suicidal thoughts, attempted suicide, or engaged in self-harming behavior at any point in their lives. Participants could answer these questions using one of three options: “yes,” “no,” or “prefer not to say.”

After collecting data on whether participants had ever been diagnosed with a personality disorder, we then administered the following scales. These instruments were specifically chosen because they align well with the experience of emptiness, ensuring that the results will provide a comprehensive measure of psychological emptiness.

Psychological Emptiness Scale. The Psychological Emptiness Scale (PES) is a 19-item instrument developed to measure the experience of emptiness (Herron, Saunders, Sani, & Feigenbaum, 2024). The scale was developed based on a validated definition of emptiness and consists of items that capture three core conceptual domains and nine components.

Participants are asked to assess their experiences related to emptiness over the past month using a four-point Likert scale: “never,” “sometimes,” “often,” and “always.” This time frame was chosen considering the chronic and persistent nature of the experience of emptiness.

To evaluate the psychometric properties of the scale, the 768-person sample was randomly split into two groups. Exploratory Factor Analysis (EFA) conducted on the first half of the sample revealed a two-factor structure. These factors were labeled “Nothingness” and “Detachment.”

The items within each factor were analyzed using Item Response Theory (IRT), and items with low information values were removed from the scale. The first factor (nothingness) reflects an individual’s perceived lack of meaning and purpose in life, while the second factor (detachment) represents a sense of disconnection from oneself and the surrounding environment.

To assess the face validity of the scale, clinicians specializing in the experience of emptiness provided feedback, evaluating the importance of each item. Based on these evaluations, items that were clinically recommended but psychometrically meaningful were retained, resulting in a finalized 19-item version of the scale. The revised and shortened PES was then tested in the second sample group using Confirmatory Factor Analysis (CFA). The two-factor structure demonstrated acceptable model fit indices, and the covariance between the two factors was found to be high. The internal consistency of the 19-item PES was assessed using Cronbach’s alpha, which indicated high reliability ($\alpha = 0.95$). The test-retest reliability was also found to be high, confirming the scale’s temporal stability. The validity of the scale was evaluated by examining its associations with other well-being measures, including psychological distress, life satisfaction, loneliness, and personality disorder traits. Analyses conducted on the full sample revealed strong positive correlations between total emptiness scores and psychological distress ($r = .758, p < .001$) as well as loneliness ($r = .731, p < .001$). Additionally, a strong negative correlation was observed between total emptiness scores and life satisfaction ($r = -0.644, p < .001$). The PES is a valid and reliable 19-item, two-factor scale for assessing the experience of emptiness. The two factors, labeled “nothingness” and “detachment,” provide a detailed and comprehensive evaluation of individuals’ experiences of emptiness (Herron et al., 2024).

Turkish Version of the Satisfaction with Life Scale. The Satisfaction with Life Scale (SWLS) is a self-report instrument developed to assess individuals’ general life satisfaction. Originally developed by Diener et al. (1985), the scale measures how individuals evaluate their overall life satisfaction and is widely used in research on happiness and subjective well-being. The SWLS consists of five items and follows a unidimensional structure. Participants respond to each item using a 7-point Likert scale, ranging from “strongly disagree” (1) to “strongly agree” (7). The scale enables individuals to rate their life satisfaction as high or low, with scoring based on the total sum of responses. The adaptation process of the Turkish version involved several steps to ensure its validity and reliability. First, the scale was translated into Turkish with permission, and then a back-translation method was used to evaluate

its consistency with the original version. Experts in educational sciences reviewed the Turkish form to enhance its accuracy, resulting in a refined Turkish version. To assess the validity of the Turkish SWLS, Confirmatory Factor Analysis (CFA) was conducted (Akın & Yalnız, 2015). The analysis confirmed a good model fit for the five-item unidimensional structure, with fit indices such as RMSEA = .080, CFI = .98, and GFI = .98, demonstrating strong model compatibility. For reliability, the internal consistency coefficient (Cronbach's alpha) was calculated as .73, indicating that the scale is a reliable measurement tool. Item-total correlation coefficients ranged from .31 to .61, confirming that the items have strong discriminative power. The Satisfaction with Life Scale is recognized as a valid and reliable instrument for assessing individuals' overall life satisfaction. Studies conducted in Turkey have demonstrated that the Turkish version of the scale is sufficiently effective in evaluating life satisfaction (Akın & Yalnız, 2015).

RULS-6 Loneliness Scale (6-Item Short Form). The RULS-6 Loneliness Scale is the Turkish adaptation of the six-item UCLA Loneliness Scale (RULS-6), revised by Wongpakaran et al. (2020) and adapted using Rasch analysis to measure loneliness levels (Inanç & Eksi, 2022). The study sample included 327 university students, aged 18 to 28, who were selected using convenience sampling. Among the participants, 69.4% were women, and 30.6% were men, with a mean age of 26.2. For validity analysis, Confirmatory Factor Analysis (CFA) was conducted to assess construct validity, confirming that the single-factor structure of the scale remained intact within the Turkish student sample. In assessing convergent validity, correlation analyses were performed between RULS-6 and UCLA LS3, revealing a significant positive correlation ($r = 0.79$, $p < 0.01$). For reliability assessment, internal consistency was calculated, yielding a Cronbach's alpha coefficient of 0.84, indicating a high level of reliability. Item analysis was conducted by examining item-total correlations and 27% upper-lower group differences, with t-test results confirming statistical significance for all items ($p < 0.01$). Item-total correlation values ranged from 0.75 to 0.89, demonstrating that each item effectively represents similar behavioral traits and contributes to the internal consistency of the scale. In conclusion, this study supports that RULS-6 is a valid, reliable, and time-efficient instrument for measuring university students' loneliness levels. Future research may further explore the validity and reliability of the scale in more specific and diverse samples (Inanç & Eksi, 2022).

Borderline Severity Assessment Scale (BSAS). The Borderline Severity Assessment Scale (BSAS) is a 15-item self-report instrument developed by Pfohl et al. (2009). The validity, reliability, and factor structure of the scale were examined in a Turkish sample (Akın, 2016). The sample consisted of 306 university students from Hasan Kalyoncu University, including 201 women and 105 men. The internal consistency of the Turkish BSAS was evaluated using Cronbach's alpha reliability analysis. The Cronbach's

alpha coefficients for the subscales—Thoughts and Emotions, Negative Behaviors, and Positive Behaviors—were 0.80, 0.65, and 0.67, respectively. The overall internal consistency coefficient for the scale was 0.75, indicating that the scale is generally reliable. In test-retest analyses, the correlation coefficients for the subscales were 0.61 for thoughts and emotions, 0.50 for negative behaviors, and 0.51 for positive behaviors. These results suggest that the BSAS demonstrates temporal stability and consistency in measurement over time. As part of the validity studies, significant correlations were found between the BSAS and several psychological assessment tools. Specifically, significant correlations were observed between the Turkish BSAS and the Turkish Borderline Personality Scale (TBPS) ($r = 0.337$), Beck Depression Inventory (BDI) ($r = 0.460$), Pathological Attachment Scale (PAS) ($r = 0.337$), State Anxiety Scale ($r = 0.351$), and Trait Anxiety Scale ($r = 0.387$) ($p < 0.01$). These findings indicate that the Turkish version of the BSAS is a valid and reliable assessment tool for use in Turkish samples. The scale can be confidently used to assess borderline severity and related emotional and behavioral characteristics (Akin, 2016).

Data Analysis and Assumptions of Confirmatory Factor Analysis (CFA)

Before conducting Confirmatory Factor Analysis (CFA), a series of preliminary analyses were performed to ensure that the model met its fundamental assumptions.

Multivariate Outliers. Multivariate outliers in the dataset were examined using the Mahalanobis distance method. The critical threshold value (χ^2 , $p < .001$) was determined to be 80.08, and a total of 62 observations were identified as multivariate outliers. This finding indicated the presence of outliers in the data. It was decided not to remove these outliers from the dataset, as removing excessive data might disrupt the factor structure of the scales.

Multivariate Normality. Mardia's skewness and kurtosis tests indicated that the dataset did not follow a multivariate normal distribution (Skewness Test = 40.90, Kurtosis Test = 122.42). Given the lack of multivariate normality, the Maximum Likelihood (ML) estimation method was deemed inappropriate for CFA.

Multicollinearity. To evaluate potential multicollinearity, the Variance Inflation Factor (VIF) and tolerance values were calculated. Some variables had VIF values ranging between 4 and 6. However, since the criteria $VIF < 10$ and $\text{tolerance} > 0.1$ were met, no severe multicollinearity issue was present in the dataset.

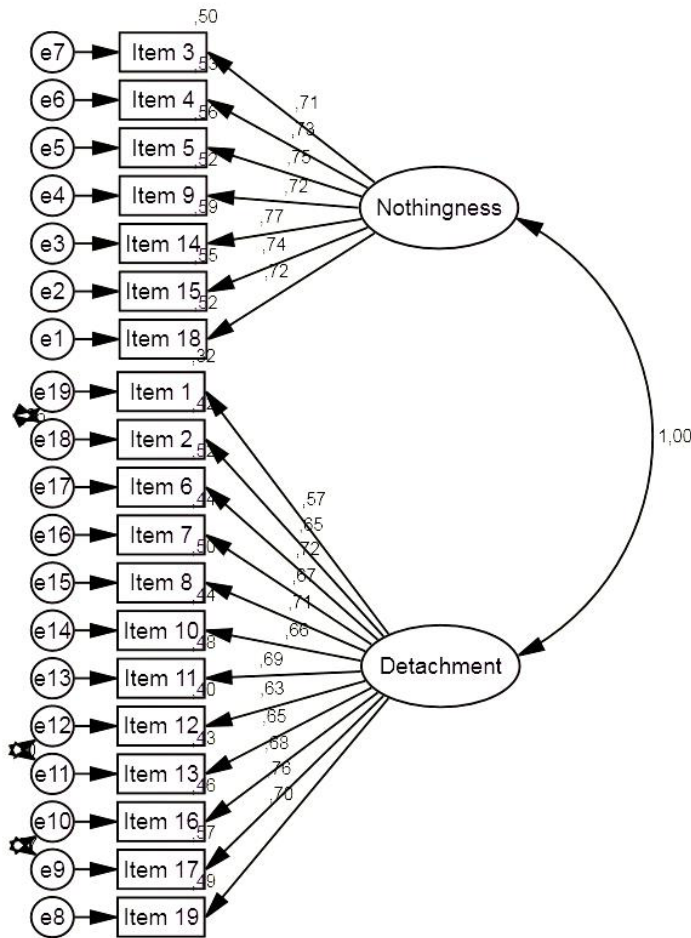
Selection of CFA Estimation Method. Following reviewer recommendations, the selection of the estimation method for CFA was explained. Since the dataset violated the normality assumption, the Robust Maximum Likelihood (MLM) estimation method—one of the robust estimation techniques—was chosen instead of the traditional ML method (Kline, 2018). The MLM method allows for a more

reliable assessment of model fit when the normality assumption is violated. CFA was conducted using the MLM estimation method, which adjusted the standard errors of model parameters and computed fit indices without being affected by non-normality issues. In conclusion, appropriate assumption tests were conducted for CFA, and outliers were retained in the analysis. Since the normality assumption was violated, Robust Maximum Likelihood (MLM) would be used for estimation.

Results

The two-factor structure of the Psychological Emptiness Scale (PES) was tested using Confirmatory Factor Analysis (CFA). The model fit indices obtained from CFA were $\chi^2/df = 4.892$, RMSEA = .074, SRMR = .041, TLI = .914, IFI = .925, NFI =

Figure 1.
Model Developed for the CFA Analysis of the Psychological Emptiness Scale



.908, CFI = .925, AGFI = .858. The analysis results indicated that the tested CFA model demonstrated an adequate model fit. The factor loadings obtained from CFA were I1 = .567, I2 = .645, I3 = .711, I4 = .729, I5 = .748, I6 = .719, I7 = .666, I8 = .706, I9 = .719, I10 = .661, I11 = .691, I12 = .629, I13 = .654, I14 = .771, I15 = .740, I16 = .680, I17 = .757, I18 = .718, I19 = .697. The factor loadings were found to be sufficient, supporting the construct validity of the two-factor model.

Item Analysis

The Cronbach's Alpha coefficients were found to be .890 for the nothingness subscale, .910 for the detachment subscale, and .947 for the overall scale, indicating adequate internal consistency. The item-total correlation values of the scale items ranged from .558 to .749, demonstrating that the items contribute meaningfully to the overall construct. The skewness and kurtosis values for each item ranged between -.223 and 1.439, indicating that the data followed a normal distribution.

Table 1
Item Analysis of the Psychological Emptiness Scale

Item	Mean	Standard Deviation	Skewness	Kurtosis	Item-Total Correlation
Item 1	.934	.747	.738	.720	.558
Item 2	.872	.731	.659	.460	.637
Item 3	1.044	.791	.608	.194	.688
Item 4	.866	.813	.898	.590	.704
Item 5	.907	.835	.760	.125	.721
Item 6	1.063	.840	.553	-.165	.696
Item 7	.980	.826	.624	-.047	.643
Item 8	.866	.832	.830	.256	.680
Item 9	1.083	.906	.668	-.223	.695
Item 10	1.108	.865	.589	-.177	.641
Item 11	.959	.795	.597	.022	.678
Item 12	.952	.858	.750	.050	.623
Item 13	.837	.915	.928	.021	.645
Item 14	.780	.810	.931	.467	.749
Item 15	.625	.828	1.270	.949	.716
Item 16	.585	.757	1.305	1.439	.666
Item 17	.756	.857	1.015	.370	.747
Item 18	.944	.819	.737	.227	.697
Item 19	.908	.844	.796	.176	.677

Convergent Validity

To determine the convergent validity of the Psychological Emptiness Scale (PES), correlation analyses were conducted with the Loneliness Scale, Borderline Severity Assessment Scale, and Satisfaction with Life Scale. The results indicated that the nothingness subscale of the PES was significantly correlated with several factors: it had a correlation coefficient of $r = 0.622$ ($p < 0.001$) with loneliness, $r = 0.754$ ($p <$

0.001) with borderline severity, and $r = -0.549$ ($p < 0.001$) with life satisfaction. For the detachment subscale, correlations were found to be $r = .649$ ($p < .001$) with loneliness, $r = .783$ ($p < .001$) with borderline severity, and $r = -.556$ ($p < .001$) with life satisfaction. The total score of the PES was significantly correlated with loneliness ($r = .655$, $p < .001$), borderline severity ($r = .792$, $p < .001$), and life satisfaction ($r = -.568$, $p < .001$).

Table 2
Correlation Analyses Between Psychological Emptiness, Loneliness, Borderline Severity, and Life Satisfaction Scales

	Nothingness	Detachment	Psychological Emptiness
Loneliness	.622**	.649**	.655**
Borderline Severity	.754**	.783**	.792**
Life Satisfaction	-.549**	-.556**	-.568**

** $p < .001$

According to the correlation analysis results presented in Table 2, a positive and strong relationship was found between the subdimensions of psychological emptiness (Nothingness, Detachment, and overall Psychological Emptiness) and loneliness ($r = .622$ to $.655$, $p < .001$). Similarly, strong positive correlations were also observed between the subdimensions of psychological emptiness and borderline severity ($r = .754$ to $.792$, $p < .001$). These results indicate that as psychological emptiness levels increase, tendencies toward loneliness and borderline severity also increase. Furthermore, significant negative correlations were found between the subdimensions of psychological emptiness and life satisfaction ($r = -.549$ to $-.568$, $p < .001$). This finding suggests that an increase in the feeling of psychological emptiness negatively impacts individuals' life satisfaction.

In conclusion, psychological emptiness is positively and significantly related to loneliness and borderline severity, while it is negatively and significantly related to life satisfaction. This indicates that psychological emptiness may have a significant impact on individuals' emotional and behavioral states. For the Loneliness Scale, the CFA model fit indices obtained in this study were $\chi^2/df = 4.90$, RMSEA = .074, SRMR = .019, TLI = 0.972, CFI = 0.985. The factor loadings of the scale items ranged from 0.64 to 0.81, and all loadings were found to be statistically significant. For the Borderline Severity Scale, the CFA model fit indices obtained in this study were $\chi^2/df = 4.60$, RMSEA = .071, SRMR = .064, TLI = 0.903, CFI = 0.921. The factor loadings of the scale items ranged from 0.58 to 0.71, and all loadings were statistically significant. For the Satisfaction with Life Scale, the CFA model fit indices obtained in this study were $\chi^2/df = 0.72$, RMSEA = .001, SRMR = .009, TLI = 1.000, CFI = 1.000. The factor loadings of the scale items ranged from 0.28 to 0.81, and all loadings were statistically significant.

Discussion

Testing the two-factor structure of the Psychological Emptiness Scale (PES) through Confirmatory Factor Analysis (CFA) is crucial for evaluating its construct validity. The findings generally indicate that the CFA model demonstrated an adequate fit, confirming the two-factor structure of the scale. When examining the model fit indices obtained from CFA, the χ^2/df ratio was found to be 4.892. Although this value is not within the excellent fit range, it falls within acceptable limits. The RMSEA value was .074, which is considered acceptable when it falls between .05 and .08 (Browne & Cudeck, 1993). This finding suggests that the model exhibits a good fit. The SRMR value was .041, which is considered excellent when it is below .05 (Hu & Bentler, 1999). This suggests that the model closely aligns with the observed data. The additional fit indices were as follows: TLI = .914, IFI = .925, NFI = .908, and CFI = .925. Typically, values above .90 indicate good model fit, and these results confirm that the model provides an acceptable level of fit. The AGFI value was .858, which is considered acceptable when it is above .80 (Byrne, 2010). This further supports the overall model fit. Evaluating the model fit indices collectively indicates that the two-factor structure of the Psychological Emptiness Scale is well-supported in terms of construct validity.

Factor loadings represent the strength of the relationship between an item and its respective factor. The results of Confirmatory Factor Analysis (CFA) indicate that the factor loadings ranged from .567 to .771. Factor loading greater than 0.50 is typically viewed as acceptable (Hair et al., 2010). This finding suggests that all items significantly contribute to the two-factor structure of the scale. Additionally, the high factor loadings confirm that the items align well with the construct they aim to measure. Based on the CFA results, the two-factor structure of the Psychological Emptiness Scale (PES) can be considered valid. The fit indices and factor loadings indicate that the model is at an acceptable level in terms of overall model fit and item-factor relationships. However, the relatively high χ^2/df value suggests that further improvements could be explored for the model. This may suggest a need to adapt certain items culturally or reformulate some of them (Marsh et al., 2004). The reliability analysis of the Psychological Emptiness Scale demonstrates that the scale exhibits high internal consistency, and its items align well with the construct they intend to measure. The Cronbach's Alpha results indicate a strong level of reliability for both the overall scale and its subdimensions. For the Nothingness subscale ($\alpha = .890$), this value is generally considered acceptable if $\alpha > .70$, good if $\alpha > .80$, and excellent if $\alpha > .90$ (Nunnally & Bernstein, 1994). The α value for nothingness suggests an internal consistency between good and excellent. For the detachment subscale ($\alpha = .910$), this value indicates a near-excellent reliability level, suggesting that the items within the subscale exhibit a strong internal relationship. For the overall scale ($\alpha = .947$), this very high alpha value indicates that the scale is highly reliable,

with all items aligning well with the general construct. These Cronbach's Alpha values confirm the strong internal consistency of the scale, demonstrating that the measured constructs can be reliably assessed. Particularly, the high α value for the overall scale supports its applicability across different samples. The item-total correlation values ranged between .558 and .749, confirming that all items significantly contribute to the overall scale score. An r value greater than 0.30 typically indicates that the items are sufficiently discriminative (Field, 2018). These findings provide additional evidence that each item in the scale is valid and reliable.

The skewness and kurtosis values ranged between $-.223$ and 1.439 , which fall within the normal distribution range. Specifically, skewness and kurtosis values between -2 and $+2$ indicate that the distribution is normal and that the scale is suitable for parametric analyses (George & Mallery, 2016). This finding supports that the scale items are homogeneously distributed within the sample and conform to normal distribution assumptions.

These findings indicate that the Psychological Emptiness Scale (PES) has high reliability. The Cronbach's Alpha values obtained for the subscales and the overall scale confirm that the scale provides stable measurements, supporting its measurement reliability. Additionally, the sufficient level of item-total correlations serves as another key indicator of the content validity of the scale. The normality of skewness and kurtosis values further highlights the flexibility of the scale in data analysis. To assess the convergent validity of the PES, correlation analyses were conducted with the Loneliness, Borderline Severity, and Life Satisfaction Scales. The results indicate that the PES is meaningfully associated with various psychological constructs, supporting its validity in assessing the intended concepts. Examining the findings related to the Nothingness subscale, a strong positive correlation was found between Nothingness and Loneliness ($r = .622, p < .001$). This suggests that as individuals' sense of nothingness increases, their levels of loneliness also rise. This finding aligns with previous research, which frequently associates loneliness and feelings of emptiness as closely related constructs (Russell et al., 1980). Robust positive correlation was also found between nothingness and borderline severity ($r = .754, p < .001$), indicating that feelings of emptiness strongly overlap with borderline personality traits (Linehan, 1993). Additionally, a significant negative correlation was identified between Nothingness and Life Satisfaction ($r = -.549, p < .001$). This suggests that as feelings of emptiness increase, life satisfaction decreases, indicating that a sense of emptiness has a substantial negative impact on individuals' overall life satisfaction. Regarding the detachment subscale, a strong positive correlation was found between detachment and loneliness ($r = .649, p < .001$). The feeling of detachment may be a significant factor contributing to increased loneliness. In particular, detachment has been linked to difficulties in interpersonal attachment processes (Bowlby, 1982).

Robust correlation was observed between detachment and borderline severity ($r = .783, p < .001$). This finding supports the notion that feelings of detachment are closely related to borderline personality traits. Specifically, this result aligns with theories suggesting that separation anxiety is a core characteristic of individuals with borderline personality disorder.

A negative correlation was found between detachment and life satisfaction ($r = -.556, p < .001$). High feelings of detachment seem to significantly reduce overall life satisfaction, indicating that detachment has a negative impact on emotional well-being. When examining the total score of the Psychological Emptiness Scale (PES), a positive correlation was found between total emptiness scores and loneliness ($r = .655, p < .001, r = .655, p < .001$), indicating that as individuals' feelings of emptiness increase, their experiences of loneliness intensify. Additionally, a robust correlation was observed between total emptiness scores and borderline severity ($r = .792, p < .001, r = .792, p < .001$), suggesting a deep connection between psychological emptiness and symptoms of borderline personality disorder. Furthermore, a negative correlation was identified between total emptiness scores and life satisfaction ($r = -.568, p < .001, r = -.568, p < .001$), demonstrating that psychological emptiness significantly diminishes overall life satisfaction.

Conclusion

This study confirms the two-factor structure of the Psychological Emptiness Scale (PES) and strongly supports its construct validity. The factor structure of the scale has been consistently validated through Confirmatory Factor Analysis (CFA) findings, demonstrating high internal consistency and reliability. The results suggest that the scale is an appropriate tool for use across various cultural and demographic groups. Convergent validity analyses demonstrated significant relationships between the subscales and the total score of the Psychological Emptiness Scale (PES) with loneliness, borderline personality severity, and life satisfaction. Positive correlations indicate that psychological emptiness is strongly associated with loneliness and traits of borderline personality. In contrast, negative correlations confirm its detrimental impact on life satisfaction. These findings suggest that the PES can be effectively used to assess psychological well-being and may serve as a valuable tool in research and clinical settings, particularly when working with individuals experiencing loneliness or borderline personality symptoms. Future studies should focus on cross-validation across different samples to further evaluate the generalizability of the scale. Additionally, supporting construct validity through alternative methods, such as test-retest reliability, would strengthen the robustness of the findings. Research assessing the validity of the PES in diverse cultural and demographic contexts will enhance its applicability and generalizability. These results establish the Psychological Emptiness

Scale as a reliable and valid tool in psychological assessment processes. Further qualitative research could provide deeper insights into the underlying mechanisms of psychological emptiness, while cross-cultural comparative studies could contribute to evaluating the scale's validity and reliability in different cultural contexts.

Acknowledgement. The author would like to sincerely thank all participants who took part in this study and generously shared their time and experiences. Their contributions were invaluable to the research process.

Ethical approval. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Selcuk University Ethics Committee (Approval No: E-91492561-605-789472).

Peer-review. Externally peer-reviewed.

Funding. This research received no external funding.

Disclosure Statement. The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statements. The data that support the findings of this study are available from the corresponding author upon reasonable request and are not publicly available due to privacy or ethical restrictions.

References

- Akın, A., & Yalnız, A. (2015). Yaşam Memnuniyeti Ölçeği Türkçe formu: Geçerlik ve güvenilirlik çalışması. *Elektronik Sosyal Bilimler Dergisi*, 14(54), 95-102. <https://www.esosder.org>
- Akın, E. (2016). *Borderline Şiddet Değerlendirme Ölçeği Türkçe versiyonunun (Türkçe BEST) geçerlik, güvenilirliği ve faktör yapısı* (Yüksek lisans tezi). Hasan Kalyoncu Üniversitesi, Sosyal Bilimler Enstitüsü, Klinik Psikoloji Bilim Dalı.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association.
- American Psychological Association. (2022). *APA publication manual* (E. Karadağ, H. Ekşi, & S. D. Çiftçi, Trans.). Kalkın Yayınları.
- Beaton, D., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2007). Recommendations for the cross-cultural adaptation of the DASH & Quick DASH outcome measures. *Institute for Work & Health*.

- Blasco-Fontecilla, H., Fernández-Fernández, R., Colino, L., Fajardo, L., Perteguer-Barrio, R., & De León, J. (2016). The addictive model of self-harming (non-suicidal and suicidal) behavior. *Frontiers in Psychiatry*, 7, 8. <https://doi.org/10.3389/fpsyt.2016.00008>
- Blasco-Fontecilla, H., León-Martínez, V., Delgado-Gómez, D., Giner, L., Guillaume, S., & Courtet, P. (2013). Emptiness and suicidal behavior: An exploratory review. *Suicidology Online*, 4, 21-32. Retrieved from <http://www.suicidology-online.com/pdf/SOL-2013-4-21-32.pdf>
- Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quinonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: A primer. *Frontiers in Public Health*, 6, 149. <https://doi.org/10.3389/fpubh.2018.00149>
- Borsa, J. C., Damásio, B. F., & Bandeira, D. R. (2012). Cross-cultural adaptation and validation of psychological instruments: Some considerations. *Paideia*, 22(53), 423-432.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment* (2nd ed.). Basic Books.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21(2), 230-258. <https://doi.org/10.1177/0049124192021002005>
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203805534>
- Cantürk Çapık, S., Gözümlü, S., & Aksayan, S. (2018). Kültürlerarası ölçek uyarlama aşamaları, dil ve kültür uyarlaması: Güncellenmiş rehber. *FNJN Florence Nightingale Journal of Nursing*, 26(3), 199-210.
- Coster, W. J., & Mancini, M. C. (2015). Recommendations for translation and cross-cultural adaptation of instruments for occupational therapy research and practice. *Revista de Terapia Ocupacional da Universidade de São Paulo*, 26(1), 50-57.
- D’Agostino, A., Pepi, R., Monti, M. R., & Starcevic, V. (2020). The feeling of emptiness: A review of a complex subjective experience. *Harvard Review of Psychiatry*, 28(5), 287-295. <https://doi.org/10.1097/HRP.0000000000000264>
- Deutsch, H. (1942). Some forms of emotional disturbance and their relationship to schizophrenia. *Psychoanalytic Quarterly*, 11(3), 301–321. <https://doi.org/10.1080/21674086.1942.11925501>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49(1), 71-75. https://doi.org/10.1207/s15327752jpa4901_13
- Duncan, G. J., & Brooks-Gunn, J. (2000). Family poverty, welfare reform, and child development. *Child Development*, 71(1), 188–196. <https://doi.org/10.1111/1467-8624.00133>
- Ermiş-Demirtaş, H. (2018). *Sense of emptiness: Development and validation of a scale* (Doctoral dissertation, Texas A&M University-Corpus Christi). Texas A&M University-Corpus Christi Repository.
- Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE Publications.
- Frankl, V. E. (2017). İnsanın anlam arayışı (S. Budak, Çev.). Okuyan Us.
- George, D., & Mallery, P. (2016). *IBM SPSS Statistics 23 step by step: A simple guide and reference* (14th ed.). Routledge.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson.
- Hazell, C. G. (1984). A scale for measuring experienced levels of emptiness and existential concern. *The Journal of Psychology: Interdisciplinary and Applied*, 117(2), 177-182. <https://doi.org/10.1080/00223980.1984.9923674>

- Herron, S. J., & Sani, F. (2022). Understanding the typical presentation of emptiness: A study of lived experience. *Journal of Mental Health*, 31(2), 188–195. <https://doi.org/10.1080/09638237.2020.1818708>
- Herron, S. J., Saunders, R., Sani, F., & Feigenbaum, J. (2024). The Psychological Emptiness Scale: A psychometric evaluation. *BJPsych Open*, 10, e42, 1-10. <https://doi.org/10.1192/bjO.2023.649>.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Inanç, A., & Eksi, H. (2022). Adaptation of RULS-6 loneliness scale (6-item short form) into Turkish: A validity and reliability study. *Contemporary Educational Researches Journal*, 12(4), 197-203. <https://doi.org/10.18844/cej.v12i4.7466>
- International Test Commission (ITC). (2018). Guidelines for translating and adapting tests. *International Journal of Testing*, 18(2), 101–134. <https://doi.org/10.1080/15305058.2017.1398166>
- Kline, R. B. (2018). *Principles and practice of structural equation modeling*. Guilford Press.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. Guilford Press.
- Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling: A Multidisciplinary Journal*, 11(3), 320-341. https://doi.org/10.1207/s15328007sem1103_2
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed., pp. 248–292). McGraw-Hill.
- Peteet, J. R. (2011). Approaching emptiness: Subjective, objective and existential dimensions. *Journal of Religion and Health*, 50(3), 558–563.
- Pfohl, B., Blum, N., St. John, D., McCormick, B., Allen, J., & Black, D. W. (2009). Reliability and validity of the Borderline Evaluation of Severity Over Time (BEST): A self-rated scale to measure severity and change in persons with borderline personality disorder. *Journal of Personality Disorders*, 23(3), 281-293. <https://doi.org/10.1521/pedi.2009.23.3.281>
- Price, A. L., Mahler, H. I. M., & Hopwood, C. J. (2022). Construction and validation of a self-report subjective emptiness scale. *Assessment*, 29(3), 397-409. <https://doi.org/10.1177/10731911211013388>
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39(3), 472-480. <https://doi.org/10.1037/0022-3514.39.3.472>
- Survey Research Center. (2016). Guidelines for best practice in cross-cultural surveys. *Institute for Social Research, University of Michigan*.
- Wongpakaran, N., Wongpakaran, T., Pinyopornpanish, M., Simcharoen, S., Suradom, C., Varnado, P., & Kuntawong, P. (2020). Development and validation of a 6-item Revised UCLA Loneliness Scale (RULS-6) using Rasch analysis. *British Journal of Health Psychology*, 25(2), 233–256. <https://doi.org/10.1111/bjhp.12404>
- Wurmser, L. (2003). Abyss calls out to abyss: Oedipal shame, invisibility, and broken identity. *The American Journal of Psychoanalysis*, 63(4), 299-316. <https://doi.org/10.1023/B:TAJP.0000004961.63367.45>



The Interplay of Mindfulness, Interoception, and Dual Emotions in Enhancing Psychological Well-being - Development of Heal-thy Life Spiritual Psychology Assessment Scale (HLSPAS)

Azeem Dana¹

Meenakshi Academy of Higher Education and Research

Sulukkana Noiprasert⁴

Mae Fah Luang University

Pandiamani Sivam²

Manipur International University

Damodaran B⁵

Meenakshi Academy of Higher Education and Research

Jabarali Abdul Kani³

Madras Christian College

¹ Department of Psychology, Faculty of Humanities and Science, Meenakshi Academy of Higher Education and Research, Chennai-600078, TamilNadu, India, E-mail: azeemdana@gmail.com

² Department of Value Education, Centre for Academic Research (C.A.R.E.), Brahma Kumaris, Education Wing, Rajyoga Education and Research Foundation (R.E.R.F.), Talahati, Abu Road, Rajasthan-307510, India. Email: bkpaniamani@gmail.com

³ Department of Statistics, Madras Christian College, East Tambaram, Chennai-600059, TamilNadu, India. E-mail: jabarali@mcc.edu.in

⁴ School of Integrative Medicine, Mae Fah Luang University, Chiang Rai 57100, Thailand. E-mail: sulukkana.noi@mfu.ac.th

⁵ Department of Psychology, Faculty of Humanities and Science, Meenakshi Academy of Higher Education and Research, Chennai-600078, TamilNadu, India, E-mail: psychology@maher.ac.in

Abstract

Recent developments in positive psychology and spiritual practices suggest a nuanced pathway to enhancing psychological well-being through the cultivation of mindfulness, interoception, and balanced dual emotions. This article explores the conceptual progression from mindfulness to interoception, further leading to an understanding of internal values and the strategic balancing of the dual emotions of silence and happiness. Mindfulness, defined as the non-judgmental focus on the present moment. Interoception, or the awareness of internal body sensations, complements mindfulness by enhancing self-regulation. The integration of silence and happiness as dual emotions contributes to mental clarity which is crucial for reducing symptoms of anxiety and depression. Happiness, associated with positive social interactions and compassion, plays a critical role in the promotion of relational well-being. By maintaining a balance between these emotions, individuals may experience enhanced well-being through improved hormonal balance and psychological resilience. Supported by spiritual practices that emphasize egolessness and contentment, this model proposes that mindfulness, interoception, and dual emotion management can synergistically foster a health-promoting environment, both psychologically and physiologically. This research involving development of Heal-thy Life Spiritual Psychology Assessment Scale (HLSPAS) aims to synthesize these elements into a coherent model that contributes to the broader understanding of psychological well-being, drawing from spiritual experience and practice in these areas.

Keywords:

Mindfulness • Interoception • Silence • Egolessness • Eudaimonic well-being • Happiness • HLSPAS • HLSPI

Corresponding author:

Azeem Dana

E-mail: azeemdana@gmail.com

eISSN: 2458-9675

Received: 14.05.2024

Revision: 22.03.2025

Accepted: 25.03.2025

©Copyright 2025 by Author(s)

Citation: Dana, A., Sivam, P., Kani, J. A., Noiprasert, S., & B. D. (2025). The interplay of mindfulness, interoception, and dual emotions in enhancing psychological well-being - Development of Heal-thy Life Spiritual Psychology Assessment Scale (HLSPAS). *Spiritual Psychology and Counseling*, 10(2), 155–187. <http://doi.org/10.37898/spiritualpc.1483767>

Introduction

In contemporary psychological practice, as informed by my own journey over nearly five decades, mindfulness and interoception are increasingly recognized as essential components in enhancing psychological well-being. Mindfulness, originally derived from ancient Eastern traditions and now integrally embedded in Western therapeutic practices, involves a focused awareness and acceptance of the present moment (Kabat-Zinn, 1994). It has been widely studied for its benefits in reducing the symptoms of various psychological disorders including anxiety, depression, and stress-related disorders (Hölzel et al., 2011). Interoception, defined as the sensory processing of internal bodily signals, complements mindfulness by providing a deeper understanding of the physiological processes related to emotions and health (Craig, 2002). Together, these practices form a robust framework for developing a heightened state of self-awareness and regulation. The pursuit of psychological well-being, however, is complex and extends beyond the individualistic focus of mindfulness and interoception. It necessitates the integration of positive emotional states that can support sustained mental health. In this context, the dual emotions of silence and happiness emerge as pivotal components. Silence, often misunderstood merely as the absence of sound, encompasses a state of mental quietude and reduced cognitive noise, which can lead to greater emotional resilience and clarity of thought (Dana, 2021, 2022). Happiness, typically characterized by feelings of joy and contentment, is crucial not only for individual well-being but also for fostering social connectedness and empathy (Fredrickson, 2001).

Recent research, along with my personal experiences, suggests that balancing these dual emotions can significantly enhance psychological resilience and well-being. Silence facilitates a reduction in the overwhelming influx of stimuli that individuals face, which can decrease stress levels and enhance mindfulness (Kabat-Zinn, 2003). On the other hand, happiness, particularly when derived from meaningful social interactions and personal achievements, enhances psychological flexibility and builds a buffer against the negative impacts of stress (Lyubomirsky, King & Diener, 2005). The synthesis of mindfulness, interoception, and the dual emotions of silence and happiness provides a comprehensive model for understanding and improving psychological well-being. This model posits that mindfulness enhances the awareness of both external and internal environments, allowing individuals to better perceive their emotional and bodily states through interoception (Farb, Segal & Anderson, 2013b). This enhanced perception can facilitate a deeper engagement with the emotions of silence and happiness, each serving distinct yet complementary roles in mental health. Silence supports introspective practices and the reduction of mental clutter, thereby reducing the risk and impact of psychological disorders such as anxiety and depression. Happiness, often spurred by positive interactions and accomplishments, offers a robust defense against the physiological and psychological detriments of stress (Davidson, Jackson & Kalin, 2000).

Furthermore, this interplay of mindfulness, interoception, and dual emotions aligns with broader psychological theories such as the Broaden-and-Build theory of positive emotions (Fredrickson, 2001). This theory proposes that positive emotions broaden an individual's momentary thought-action repertoires, which in turn help to build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resilience. The relevance of this model is particularly significant in the context of modern-day stressors, where individuals are continuously bombarded by information and often struggle with social isolation and mental health challenges. By fostering an environment where individuals can regularly engage in practices that promote mindfulness, interoception, and positive emotional experiences, there is potential for a more holistic approach to mental health that is both preventive and therapeutic.

This research, therefore, aims to explore how the strategic integration of these psychological constructs - mindfulness, interoception, and the dual emotions of silence and happiness - can be operationalized to enhance overall well-being. It will examine existing research on these practices, discuss their physiological and psychological impacts, and propose a Heal-thy Life Spiritual Psychology Assessment Scale (HLSPAS) to measure their combined effect on health outcomes. The ultimate goal is to provide a comprehensive understanding that could guide future research and practice in psychological health and well-being, informed by my personal insights and decades of practice.

Mindfulness and Interoception

The interconnected practices of mindfulness and interoception are pivotal in the realm of psychological health, offering robust mechanisms for enhancing well-being. Mindfulness, defined as the intentional and nonjudgmental focus on the present moment, is recognized for its therapeutic benefits across a spectrum of psychological conditions, notably anxiety and depression (Hölzel et al., 2011). This practice involves a deliberate attention to current activities and experiences, fostering a profound connection with the present that can mitigate the pervasiveness of stress-related thoughts and feelings. A substantial body of research supports the efficacy of mindfulness in mental health therapy. Studies have consistently shown that mindfulness meditation can lead to significant reductions in the symptoms associated with psychological stress, anxiety, and depressive disorders (Hölzel et al., 2011; Kabat-Zinn, 2005). For instance, mindfulness-based stress reduction (MBSR) programs have demonstrated effectiveness in reducing anxiety levels and improving mood in various populations, showcasing the adaptive advantages of mindfulness in managing emotional challenges (Grossman, Nieman, Schmidt & Walach, 2004).

Complementing mindfulness, interoception involves the sensitivity to internal bodily cues, such as heart rate, respiratory patterns, and gastrointestinal sensations.

It is a critical component of how individuals perceive and react to emotional states (Craig, 2002). By enhancing one's awareness of physiological signals, interoception contributes significantly to emotional regulation and self-awareness. It enables individuals to recognize and interpret their body's signals, which can inform their emotional responses and decision-making processes (Khalsa et al., 2018). The relationship between interoception and emotional well-being is complex and multifaceted. Improved interoceptive awareness can lead to better management of emotional experiences by aligning physiological responses with psychological states. This alignment is crucial in conditions such as anxiety and depression, where physiological symptoms can exacerbate the emotional disturbance (Paulus & Stein, 2010). Furthermore, interoception is integral to the embodiment of emotions, where recognizing and understanding bodily signals can deepen emotional experiences and enhance emotional empathy (Critchley & Garfinkel, 2017).

Empirical studies have elucidated the pathways through which mindfulness and interoception interact to affect psychological well-being. Mindfulness training has been shown to enhance interoceptive awareness by increasing the accuracy of heartbeat detection, a common measure of interoceptive ability (Bornemann, Herbert, Mehling & Singer, 2015). This heightened awareness can, in turn, facilitate better emotional regulation by enabling a more nuanced understanding and response to physiological feedback related to stress and anxiety (Farb, Segal & Anderson, 2013a). Moreover, the practice of mindfulness can amplify the benefits of interoception by helping individuals detach from negative thought patterns and focus more acutely on internal bodily states without judgment. This process not only reduces the impact of stress and anxiety on the body but also promotes a more grounded, calm, and balanced psychological state (Mehling et al., 2012). In therapeutic settings, integrating mindfulness and interoception has shown promise in treating a range of psychosomatic and psychological disorders. For example, therapies that incorporate elements of both practices, such as Mindfulness-Based Cognitive Therapy (MBCT) and Dialectical Behavior Therapy (DBT), have been effective in reducing symptoms of depression, anxiety, and borderline personality disorder (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006; Linehan, 1993). The synergy between mindfulness and interoception forms a foundational strategy for enhancing psychological well-being. Through the cultivation of focused attention and bodily awareness, individuals can achieve a more harmonious balance between mind and body, leading to improved mental health outcomes. As research continues to explore these interactions, it becomes increasingly clear that these practices are not only beneficial in clinical settings but also serve as vital tools for everyday emotional health and resilience.

Dual emotions: silence and happiness

In the pursuit of psychological well-being, the novel concept of balancing dual emotions - silence and happiness - offers a promising avenue for enhancing mental resilience and emotional health. Silence, in this context, refers not only to the absence of sound but to a mental state characterized by diminished internal chatter, facilitating greater mental clarity and peace. This form of silence can be profoundly therapeutic, contributing to the reduction of anxiety and stress-related disorders. Dana (2021, 2022) posits that fostering moments of silence in one's daily life can interrupt the relentless flow of thoughts, which is often dominated by rumination and worry, thus leading to enhanced mental clarity and reduced symptoms of anxiety and depression. Moreover, the practice of cultivating silence has been linked to the development of deeper introspective capabilities, which in turn facilitate a more profound understanding of one's thoughts and emotions. This deeper understanding can promote a more nuanced approach to handling emotional disturbances, allowing individuals to experience and process negative emotions more constructively without becoming overwhelmed by them (Killingsworth & Gilbert, 2010).

Conversely, happiness in this dual-emotion framework is associated with positive, outward-facing emotions such as joy, satisfaction, and well-being, which are crucial for fostering strong social bonds and promoting effective communication. According to Fredrickson (2001), the experience of happiness often leads to broader social interactions and behaviors marked by kindness and compassion. This outward expression of positive emotions can create feedback loops that not only enhance personal happiness but also strengthen community ties and improve overall social cohesion. Fredrickson's broaden-and-build theory further supports the importance of happiness, suggesting that positive emotions broaden an individual's momentary thought-action repertoires, leading to building lasting personal resources, ranging from physical and intellectual resources to social and psychological ones (Fredrickson, 2004). In essence, happiness helps to build resources that can be crucial during times of stress or adversity, promoting resilience and a buffer against negative psychological states.

Balancing these dual emotions, silence and happiness, involves the cultivation of an internal environment where one can oscillate between introspection and extrospection effectively. It is this balance that potentially allows for an optimal psychological state wherein one is neither overly stimulated by externalities nor overly withdrawn into one's internal world. This equilibrium facilitates a unique space for emotional growth and resilience, where the mind can navigate seamlessly between deep contemplative states (silence) and engaging, joyful interactions (happiness), enhancing overall mental health and well-being. Moreover, the interplay between silence and happiness could be particularly beneficial in therapeutic or stress-reduction interventions. Mindfulness and meditation programs often encourage participants to find a balance between

these states, suggesting periods of silent reflection followed by interactive sessions or practices focused on cultivating joy and gratitude (Kabat-Zinn, 2005; Siegel, 2010).

Empirical research supports the efficacy of such dual-emotion strategies. Studies have shown that interventions that include both meditative practices (promoting silence) and activities that foster positive emotional experiences (promoting happiness) can lead to significant improvements in mental health outcomes, including reduced symptoms of depression and anxiety, as well as enhanced levels of life satisfaction (Chiesa & Serretti, 2009; Lyubomirsky, Sheldon & Schkade, 2005). The strategic balancing of silence and happiness as dual emotions offers a dynamic and holistic approach to psychological resilience. By cultivating both introspective depth and expansive, positive interactions, individuals can foster a mental environment conducive to sustained psychological well-being. This balance not only aids in managing stress and reducing mental health disorders but also enriches the quality of life by enhancing both personal fulfillment and social connectivity.

Integrating values and emotions

The integration of values and emotions within the framework of psychological well-being is a critical aspect that enriches our understanding of how mental health can be enhanced through mindful practices. The concept of balancing dual emotions, specifically silence and happiness, provides a nuanced approach to emotional regulation that extends beyond simple emotional states to incorporate a broader spectrum of values including tolerance, acceptance, love, and compassion. These values are not only inherently beneficial for the individual's mental health but also promote social harmony and personal growth. Silence and happiness, as a dual emotional state, can foster a range of positive psychological changes by facilitating an environment conducive to the secretion of health-promoting hormones such as oxytocin and dopamine (Alexander et al., 2021). These hormones play a significant role in enhancing mood and overall well-being, thereby supporting the assertion by Davidson et al. (2000) that positive emotions can lead to physiological benefits that promote health. This hormonal response can be particularly effective in reducing stress, anxiety, and symptoms of depression, creating a feedback loop that further strengthens the practice of these values (Davidson et al., 2003).

The practice of silence allows for deeper introspection and mindfulness, enabling individuals to become more aware of their internal value systems and how these may be influenced or disrupted by external factors. This awareness is crucial for developing tolerance and acceptance, as it encourages a non-judgmental perspective towards both oneself and others. Research has shown that increased mindfulness and introspection can lead to greater empathy and reduced biases, which are essential for fostering acceptance and tolerance (Kabat-Zinn, 2005; Siegel, 2010). Conversely, the

emotion of happiness often encourages outward expression and connection, fostering values such as love and compassion. Fredrickson's (2004) broaden-and-build theory suggests that positive emotions expand an individual's awareness and encourage novel, varied, and exploratory thoughts and actions. This can lead to stronger social bonds and an increased propensity to engage in prosocial behaviors, such as helping others and expressing gratitude, which are both reflective of the values of love and compassion (Fredrickson, 2001). Moreover, the integration of these values through the balanced expression of silence and happiness allows for a more adaptable emotional repertoire. Being able to switch fluidly between introspection and social engagement enables individuals to respond more effectively to different situational demands. This adaptability is crucial for maintaining psychological resilience and well-being in a complex social and personal landscape. For example, the ability to remain silent and introspective during times of conflict or stress can prevent escalatory responses, while happiness and its associated behaviors can strengthen relationships and build supportive networks (Gross, 2002).

The therapeutic implications of integrating values and emotions are significant. Mindfulness-based interventions often emphasize the cultivation of such values, teaching individuals how to manage their emotions and enhance their relationships through practices that encourage both reflective silence and active engagement with positive emotions (Segal, Williams & Teasdale, 2002). These interventions can be particularly effective in treating a range of psychological issues, from everyday stress to more severe conditions like major depressive disorder. Empirical studies support the integration of these values and emotions in therapy. For instance, incorporating practices that foster both mindfulness (silence) and compassion (happiness) has been shown to improve clinical outcomes by not only reducing symptoms but also by enhancing clients' quality of life and social functioning (Hofmann, Sawyer, Witt & Oh, 2010). The synthesis of values and emotions through the dual framework of silence and happiness provides a robust mechanism for enhancing psychological well-being. This integration facilitates a balanced approach to personal and social interactions, promotes a range of healthful hormonal responses, and supports the development of a comprehensive set of psychological tools that aid individuals in navigating their complex emotional landscapes. Such practices not only support individual well-being but also contribute to healthier and more compassionate societies (Lawlor, 2016).

Spiritual Practices Supporting Dual Emotions

Eudaimonic Approaches

Eudaimonic well-being, as conceptualized in positive psychology, extends beyond the mere experience of pleasure and delves into the deeper aspects of human flourishing that are associated with meaning, purpose, and self-realization

(Ryan & Deci, 2001). Eudaimonic approaches emphasize practices that foster soul consciousness, a state where the individual transcends mere physical preoccupations and concerns, nurturing a sense of interconnectedness and egolessness. This advanced state of being promotes contentment, peace, and sustainable well-being.

One of the primary techniques in eudaimonic practices is the visualization of the intrinsic light in others, which is a method of seeing beyond the physical appearances and perceived differences to recognize the shared essence of humanity and spirituality in all (Vago & Silbersweig, 2012). This practice not only diminishes the boundaries created by the ego but also fosters a profound sense of unity and compassion towards others, which are key elements of eudaimonic well-being. By focusing on the intrinsic light, individuals may experience a reduction in personal biases and an increase in altruistic behaviors, as suggested by research that links such visualizations with increased empathy and reduced social isolation (Hutcherson, Seppala & Gross, 2015). Moreover, the practice of disengaging from worldly concerns, another cornerstone of eudaimonic approaches, involves a deliberate withdrawal from the everyday stressors and materialistic values that often dominate modern life. This disengagement is not about neglecting responsibilities, but rather about gaining a healthier perspective on life's transient worries and emphasizing spiritual or existential values over material gain (Steger, Frazier, Oishi & Kaler, 2006). Studies have shown that such practices can lead to greater life satisfaction and improved mental health, as individuals who focus on eudaimonic rather than hedonic goals tend to exhibit lower levels of stress and higher levels of positive affect (Ryan, Huta & Deci, 2008).

Engagement in eudaimonic practices also cultivates a sense of egolessness and contentment. Egolessness is not about losing one's identity but transcending the narrow self-interest to embrace a broader, more inclusive view of oneself as part of the interconnected web of life (Dambrun & Ricard, 2011). This perspective shift is crucial for fostering sustainable happiness, as it reduces the emotional disturbances that arise from ego-based desires and aversions. Psychological research supports the idea that reductions in egoistic self-concern are associated with increases in psychological well-being and reductions in emotional distress (Brown & Ryan, 2003). Further, eudaimonic well-being is enhanced by the feeling of contentment, which arises from a deep acceptance of life as it is, without relentless striving for more or better. This acceptance is closely linked to mindfulness and is seen as a protective factor against the dissatisfaction bred by constant desire (Sheldon, Ryan, Deci & Kasser, 2004). Contentment in eudaimonic terms is profound, stemming from a realization of innate wholeness and sufficiency, and is supported by practices that encourage a non-attachment to transient external outcomes.

In practical terms, the implementation of eudaimonic practices can be facilitated through various activities such as meditation, reflective writing, community service,

and spiritual or religious engagement. These activities help individuals to cultivate insights into their true nature beyond the physical and material, leading to a more fulfilling and harmonious life (Seligman, Rashid & Parks, 2006). Eudaimonic approaches offer a powerful pathway to psychological well-being by fostering deeper levels of self-awareness, connection, and peace. Through techniques that encourage the transcendence of physical preoccupations, visualization of the intrinsic light in others, and disengagement from worldly concerns, individuals can achieve a state of egolessness and contentment. This shift not only enhances personal well-being but also contributes to the well-being of others, reinforcing the interconnected nature of human flourishing.

Operationalizing egolessness and happiness.

The pursuit of psychological well-being often emphasizes the cultivation of positive emotions and states that transcend the self-centered focus, notably egolessness and happiness. Research underscores that practical spiritual practices, such as blessings, positive thinking, and divine surrender, can significantly enhance these emotional states, contributing to both psychological and social well-being (Emmons & McCullough, 2003).

Blessings as a practice involves the conscious act of wishing positive things for others, which can lead to a reduction in self-centeredness and an increase in feelings of connectedness and happiness. This practice not only benefits the receiver but also enhances the giver's sense of well-being by fostering a sense of generosity and outward focus (Krause, 2006). Regular engagement in blessing others can facilitate a shift from ego-driven motivations to a more altruistic, compassionate orientation, which is associated with improved mental health and increased life satisfaction (Post, 2005). Positive thinking is another powerful tool in operationalizing egolessness and happiness. It involves consciously focusing on the positive aspects of life, maintaining a hopeful outlook, and fostering optimism. Research has demonstrated that such an orientation can buffer against the psychological impacts of stress and adversity, and enhance resilience (Seligman & Csikszentmihalyi, 2000). By maintaining a positive outlook, individuals can reduce the habitual patterns of negative thinking that often underpin egoistic concerns such as envy, resentment, and insecurity (Fredrickson, 2001). Divine surrender, or the practice of relinquishing personal control and worries to a higher power, serves as a profound method for cultivating egolessness and enhancing inner peace and contentment. This practice can include meditation, prayer, or simply the mental act of handing over one's fears and desires to something greater than oneself. It has been shown to decrease stress and anxiety by reducing the burden of personal control and the strain of constant self-regulation (Pargament, Koenig & Perez, 2000). Individuals practicing divine surrender often report increased feelings of serenity and trust, which contribute to overall happiness and psychological stability.

The integration of these practices into daily life can be systematically approached through various interventions. For example, structured meditation programs that include teachings on blessings and divine surrender can help individuals learn how to effectively incorporate these practices into their routine (Carmody & Baer, 2008). Workshops and community groups focused on positive thinking can provide the necessary support and reinforcement for individuals to shift towards more optimistic and less self-centered patterns of thought. Moreover, these practices are not just solitary; they can be communal, involving family, community, or spiritual groups, which further enhances their impact by creating supportive networks that encourage and reinforce egoless and positive attitudes (Keltner & Haidt, 2003). For instance, community-based programs that encourage members to bless each other and share their experiences of divine surrender can strengthen social bonds and foster a supportive environment conducive to personal and collective well-being.

In operational terms, success in fostering egolessness and happiness could be measured through self-report scales assessing levels of connectedness, altruism, life satisfaction, and reduction in negative emotional states. Longitudinal studies could track changes over time in these variables, providing empirical evidence for the efficacy of these spiritual practices (Lyubomirsky et.al., 2005). Operationalizing egolessness and happiness through practical spiritual methods like blessings, positive thinking, and divine surrender can significantly enhance an individual's psychological and social well-being. These practices provide accessible tools for reducing ego-driven behaviors and increasing positive emotional states, which are crucial for achieving lasting psychological resilience and well-being.

Spiritual Psychology and Heal-ty Life Spiritual Psychology Assessment Scale (HLSPAS)

Spiritual Psychology is increasingly recognized as a vital component of holistic health, yet significant gaps remain in accurately assessing this multifaceted construct, particularly within culturally diverse contexts. Tools such as the 24-item San Diego Wisdom Scale (SD-WISE) have explored aspects of spirituality, but often as a minor component compared to other dimensions like pro-social behaviors and emotional regulation. This imbalance highlights the limited scope of such tools in capturing the full essence of spiritual wellness (Jeste et al., 2021). Globally, efforts to adapt spiritual assessment tools for specific populations - such as the Daily Spiritual Experiences Scale (DSES), which has been applied to Chinese Americans with cancer-related pain - have faced challenges regarding cultural relevance and the overlap between spirituality and religiosity (Lo, Chen, Wasser, Portenoy & Dhingra, 2016). Development of a Heal-ty Life Spiritual Psychology Assessment Scale seeks to address these gaps by offering a culturally sensitive tool, focusing on personal

well-being, inner peace, and mental health. The need for such an instrument is further underscored by the growing emphasis on culturally relevant interventions in palliative care and chronic illness management. In the Chinese-American context, for example, spiritual assessment has proven essential in developing personalized care strategies (Mokkink et al., 2010).

Theoretical frameworks such as Positive Psychology and Transpersonal Psychology highlight the profound impact of spirituality on health outcomes. However, existing tools often lack the cultural specificity needed to capture the nuances of spiritual experiences across different societies. The role of spirituality in psychological resilience has also been demonstrated in studies involving breast cancer patients, where factors like social support and resilience directly influence spiritual needs (Du et al., 2024). Additionally, emerging tools such as the OCEANic Scale, which attempts to quantify abstract spiritual experiences, reflect the growing interest in measuring spirituality's impact on well-being (Schmautz et al., 2024). Nevertheless, these instruments often fall short in capturing the spiritual dimensions inherent to non-Western cultures. The Heal-ty Life Spiritual Psychology Assessment Scale fills this gap by integrating spiritual practices, aligning with the global trend toward culturally informed spiritual assessment, as emphasized by the COSMIN checklist for developing health measurement tools (Mokkink et al., 2010).

This study utilized a mixed-methods approach to develop the Heal-ty Life Spiritual Psychology Assessment Scale, employing both qualitative and quantitative methodologies to ensure cultural relevance and psychometric rigor. Following the COSMIN checklist, the scale underwent a systematic process of item generation, expert validation, and psychometric testing, including reliability measures such as intraobserver stability and test-retest analysis (Mokkink et al., 2010). The development process also drew from established spiritual assessment methods, such as spiritual lifemaps and genograms, to inform item creation (Hodge, 2005). The scale was validated through exploratory and confirmatory factor analyses, with strong psychometric properties emerging in a sample of individuals practicing spiritual and holistic lifestyles, similar to those seen in scales developed for specialized populations, such as patients with COVID-19 (Rahimaghaee, Vizheh & Hatamipour, 2022). The primary goal of this study is to create a reliable, culturally tailored instrument that accurately measures spiritual wellness, thereby facilitating the integration of spirituality into holistic health assessments.

Spiritual Assessment Scales

The exploration of spirituality in health and psychological assessments has led to the development of various spiritual scales, each catering to specific needs and contexts. The Paloutzian and Ellison Spiritual Well-Being Scale evaluates overall spiritual

health and has been widely used in clinical and research settings (Paloutzian & Ellison, 1982). The San Diego Wisdom Scale, also known as the Jeste-Thomas Wisdom Index, examines the relationship between wisdom and spirituality, emphasizing cognitive and emotional regulation aspects (Jeste et al., 2021). The Daily Spiritual Experiences Scale-Chinese (DSES-C) measures the frequency of spiritual experiences in everyday life, tailored to the cultural context of Chinese populations (Underwood, 2011). Additionally, the Spiritual Needs Assessment Scale for COVID-19 Patients, developed during the pandemic, addresses the unique spiritual needs of patients affected by COVID-19, highlighting the role of spiritual care in managing illness-related distress (Rahimaghaee et al., 2022). The OCEANic Feelings Scale, combined with the Brief-Affective Neuroscience Personality Scales (BANPS-GL) and the Big Five Inventory (BFI-44), measures spiritual experiences through a lens of affective neuroscience, offering insights into the neurobiological underpinnings of spirituality (Schmautz et al., 2024). The Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being 12 scale (FACIT-Sp-12) assesses spirituality as a component of quality of life, particularly in chronically ill patients, providing a reliable measure of spiritual well-being (Fradelos et al., 2024). The Spiritual Care Intervention and Spiritual Well-Being Questionnaire (SCIPS) evaluates the provision of spiritual care among nurses, emphasizing religious and existential dimensions (Musa, 2017). The Spirituality Index of Well-Being (SIWB) examines self-efficacy and life schemes, measuring the impact of spirituality on personal well-being (Daaleman & Frey, 2004). The Snyder's Hope Scale and the Paloutzian and Ellison's Spiritual Well-Being Scale (SWBS) (Darvyri et.al., 2014) are combined to assess hope and spiritual well-being in clinical settings, supporting interventions aimed at enhancing patients' spiritual health (Afrasiabifar, Mosavi, Jahromi & Hosseini, 2021). The Scale of Religious and Spiritual Struggles (RSS) identifies struggles within religious and spiritual domains, providing a tool to address conflicts that impact mental health (Tomás & Moreira, 2024). The Positive Psychological Attitudes tool measures life purpose, satisfaction and self-confidence (Kass et al., 2001). The Spiritual Health Assessment Scale - Index of Core Spiritual Experiences (INSPIRIT) is used to assess spiritual health and coping strategies in diverse populations (Manna, Udayaraj, Grover & Kumar, 2024). The Spiritual Leadership Scale evaluates the influence of spiritual leadership in organizational contexts, highlighting its role in employee well-being and motivation (Grobler & Sibanda, 2024). Nursing-specific spiritual scales emphasize the duty of healthcare providers to meet patients' spiritual needs, enhancing the holistic care approach (Cadge & Bandini, 2015). The Spiritual Distress Assessment Tool (SDAT) addresses spiritual distress in hospitalized elderly persons, providing a validated tool for geriatric care (Monod et al., 2010). Lastly, the Spiritual Needs Assessment Scale for patients with cancer addresses the unique spiritual needs of cancer patients, aiding in the provision of comprehensive spiritual care (Erci & Aslan, 2022).

Heal-thy life spiritual psychology assessment scale (HLSPAS).

The scale encompasses a comprehensive range of spiritual and psychological virtues that contribute to holistic well-being. These include honesty, happiness, thought control, and the absence of envy, along with alertness and detachment. It emphasizes passion, positive thinking, and humility, fostering qualities such as caring, acceptance, contentment, and a sense of unlimited potential. The scale also highlights the importance of self-control, restfulness, self-awareness, and empowerment, encouraging individuals to enjoy solitude while maintaining peace and calmness. Additionally, it values a loving nature, concise and kind communication, ease in approach, cheerfulness, stability, and mastery over situations. Other key virtues include tolerance, relaxation, empathy, farsightedness, regard for others, and understanding. The scale promotes egolessness, non-greediness, flexibility, and cooperation, while also prioritizing transparency, an expansive sense of being (oceanic feeling), strong interpersonal relationships, effective planning, the absence of procrastination, and consistency. Together, these traits form a foundation for personal and interpersonal growth.

Method

Objective

The primary objective of this study was to develop, validate, and determine the reliability (Boateng, Neilands, Frongillo, Melgar-Quinonez & Young, 2018) of the “Heal-thy Life Spiritual Psychology Assessment Scale” (HLSPAS) aimed at measuring spiritual wellness in individuals. The scale was designed to assess various dimensions of spiritual wellness among adults aged 18 to 65 years, with the goal of creating a comprehensive tool that captures the essence of spiritual health.

Study design.

This study utilized a cross-sectional design to develop and validate the HLSPAS. The study involved multiple phases including scale development, pilot testing, and statistical validation through Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA).

Study setting: The study was conducted both online and in-person across various regions of India. The online format allowed for broader participation, while in-person data collection ensured access to individuals without reliable internet access.

Participants. A total of 512 participants aged between 17 and 65 years were recruited from various cities and towns across India. Participants included individuals from diverse educational, occupational, and socio-economic backgrounds, providing a wide range of perspectives on spiritual wellness.

Sampling Strategy and Sample Size. A convenience sampling approach was employed, utilizing both online and in-person recruitment methods. Participants were selected based on their availability and willingness to participate in the study. Cochran (1977) proposed a formula to determine a representative sample size for proportion estimation, which is given by:

$$n = \frac{z^2 p(1-p)}{e^2}$$

In this formula, n represents the sample size, z is the critical value associated with the desired confidence level, p is the estimated proportion of an attribute in the population, q is equal to $1-p$, and e denotes the desired level of precision. Assuming maximum variability in the population ($p=0.5$), a 95% confidence level ($z=1.96$), and a precision of $\pm 5\%$ ($e=0.05$), the required minimum sample size is 384. However, to enhance statistical robustness and improve the reliability of the findings, the final sample size was increased to 512 participants (Costello & Osborne, 2005; Tabachnick & Fidell, 2013).

Study procedures.

The study was conducted in three main phases:

Item Generation and Scale Development: Initially, about 100 items were developed based on an extensive literature review and consultation with experts in spiritual wellness and psychological measurement. The items were reviewed by six experts from the fields of psychology, social work, and education, resulting in a Content Validity Index (CVI) score of 0.9285.

Pilot Study. A pilot study was conducted with a subset of participants ($n = 120$) to test the clarity, relevance, and comprehension of the items. Feedback was gathered, and adjustments were made accordingly.

Statistical Validation. EFA was performed to identify the underlying factor structure of the scale, leading to the refinement of items. CFA was then used to confirm the factor structure, resulting in a final scale with 22 items categorized into four factors.

Inventories Used. The inventories employed for the study included:

- (i) Heal-thy Life Spiritual Psychology Assessment Scale (HLSPAS): The newly developed scale measuring spiritual wellness across four dimensions.
- (ii) Demographic Questionnaire: Collected information on age, gender, education level, occupation, and other relevant background factors.

Data Collection. Data collection involved administering the HLSPAS to participants through online forms and face-to-face interviews. Each participant was provided with clear instructions with a Participant Information sheet, Informed Consent and assured of the confidentiality of their responses. Data was managed using standardized protocols to ensure accuracy and confidentiality.

Data Analysis. Exploratory Factor Analysis (EFA): EFA was conducted to explore the factor structure of the 42 initial items during pilot study, reduced to 24 items and later reduced to 22 items, grouped into four distinct categories. Confirmatory Factor Analysis (CFA): CFA was employed to confirm the structure suggested by the EFA. Fit indices such as Chi-square, RMSEA, CFI, and TLI were used to determine the goodness of fit of the model (Kline, 2016). Reliability Testing: Internal consistency was assessed using Cronbach's alpha, and test-retest reliability was established to ensure the scale's stability over time (Nunnally & Bernstein, 1994).

Human Participants Protection. Ethical approval was obtained from the institutional review board before the commencement of the study. Informed consent was obtained from all participants, and confidentiality was strictly maintained throughout the research process. Participants were informed of their right to withdraw from the study at any point without any penalty. Parent consents were taken for ages below 18 yrs.

Data Analysis

Reliability Analysis

The internal consistency of the questionnaire was assessed using Cronbach's Alpha, a widely used statistical measure for evaluating the reliability of scale items. The SPSS output revealed a Cronbach's Alpha value of 0.925 for the initial 24-item scale, indicating excellent internal consistency. According to established reliability benchmarks (Jabarali, Sathya Kumar & Barak, 2024), a Cronbach's Alpha above 0.7 is deemed acceptable, reflecting adequate internal consistency, while a value exceeding 0.8, as observed in this study, suggests strong reliability (Field, 2005). This high reliability score confirms that the scale items are well-correlated and effectively measure the intended construct.

Following an exploratory analysis, the scale was refined to 22 items, with a revised Cronbach's Alpha of 0.921, maintaining excellent reliability. This suggests that the refined scale preserves its internal consistency while potentially reducing redundancy or overlap among items. Given these results, the scale can be confidently used for further statistical analyses and research applications.

Frequency statistics for demographic variables.

The frequency analysis of Table 1 reveals key demographic and contextual characteristics of the study participants. The sample is predominantly adolescent (68.2%) with a smaller proportion of adults (31.8%), and the mean age is 25.42 years (SD = 12.77), ranging from 17 to 65 years. A majority of participants fall within the 17–19 age group, representing over 60% of the sample, while individuals aged 20–50 make up a smaller portion, and those over 60 are minimally represented. In terms of gender, females dominate the sample at 77.1%, followed by males at 21.5%, with a small representation (1.4%) of individuals identifying as “Others.” Marital status data indicate that 50.2% are single, 8.2% are married, and 41.0% preferred not to disclose, suggesting potential sensitivity around this information.

Educationally, 68.8% are undergraduates, 12.5% are postgraduates, and 18.2% did not provide information. Regarding family education, 21.5% reported that both their parents and siblings attended college, 16.0% are the firsts in their family to pursue higher education, and 18.2% share this status with siblings, with 42.0% abstaining from response. Employment data show that 48.6% of participants are students, with smaller proportions being employed (5.3%) or self-employed (3.1%), while 37.7%

Table 1
Frequency Statistics of Demographic Variables

Demographic Variables	Category	Frequency (Percentage)
Sample Size		512
Age Group Classification	Adolescent	349 (68.2%)
	Adult	163 (31.8%)
Gender	Male	110(21.5%)
	Female	395(77.1%)
	Others	7(1.4%)
Marital Status	Single	257(50.2%)
	Married	42(8.2%)
	Separated	3(0.6%)
	Not Prefer to say	210(41%)
Education Qualification	Undergraduate	352 (68.8%)
	Post graduate	64 (12.5%)
	Others	3 (0.6%)
	Not Prefer to say	93 (18.2%)
Education in Family	First in my family to attend college or university	82 (16%)
	Myself and Siblings are first in family to attend college or university	93 (18.2%)
	Myself, siblings, and Parents have attended college or university	110 (21.5%)
	Prefer not to say	227 (44.3%)
Employment Status	Student	249 (48.6%)
	Employed	27 (5.3%)
	Self-employed	16 (3.1%)
	Unemployed	25 (4.9%)
	Prefer not to say	195 (38.1%)

chose not to disclose their employment status. Overall, the analysis highlights a predominantly young, female, and student-centric sample, with significant non-response rates in categories like diet, family education, and employment, possibly reflecting contextual or cultural sensitivities. These findings should be considered when interpreting the study results and assessing their broader applicability.

Exploratory factor analysis.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, with a value of 0.948, indicates that the sample size is highly suitable for factor analysis. Bartlett's Test of Sphericity, with a significant p-value of 0.000, confirms that the correlation matrix is not an identity matrix, validating the appropriateness of factor analysis

The total variance explained in Table 2, details the variance accounted for by the components. Components with eigenvalues greater than 1 are retained (Figure 1), resulting in four components explaining a cumulative 52.501% of the total variance. Rotation redistributes this variance more evenly across the components to improve interpretability. Specifically, Factor 1 (Self-regulation) explains 18.410%, Factor 2 (Resilience) accounts for 16.094%, Factor 3 (Detachment) contributes 9.460%, and Factor 4 (Empathy) represents 8.537% of the variance.

From Table 3, the component matrix displays the unrotated loadings of variables on components, where loadings greater than 0.4 are significant. Key factor loadings greater than 0.50 were identified for each factor: Factor 1 includes variables such as sq2, sq4, sq5, sq6, sq7, sq8, sq11, sq12, and sq13; Factor 2 encompasses sq16, sq18, sq19, sq20, sq21, sq22, sq23, and sq24; Factor 3 covers sq9, sq10, and sq17; while Factor 4 comprises sq14 and sq15. For instance, sq6 has a strong loading of 0.667 on factor 1, indicating its primary association with this factor. After Varimax rotation, the rotated component matrix simplifies interpretation by maximizing high loadings and minimizing low ones. For example, sq14 exhibits a high loading of 0.732 on Component 4, emphasizing its strong association with this factor.

The component transformation matrix in Table 4 shows correlation between components post-rotation, maintaining independence between components through orthogonal Varimax rotation. Lastly, the component score covariance matrix confirms the uncorrelated nature of components, with diagonal elements of 1 and off-diagonal elements of 0, consistent with Varimax rotation.

Table 2
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
1	8.347	37.941	37.941	8.347	37.941	37.941	4.050	18.410	18.410
2	1.141	5.185	43.126	1.141	5.185	43.126	3.541	16.094	34.504
3	1.056	4.802	47.928	1.056	4.802	47.928	2.081	9.460	43.964
4	1.006	4.572	52.501	1.006	4.572	52.501	1.878	8.537	52.501
5	0.846	3.846	56.347						
6	0.824	3.744	60.091						
7	0.776	3.528	63.618						
8	0.754	3.426	67.045						
9	0.725	3.296	70.341						
11	0.634	2.881	76.223						
12	0.613	2.786	79.010						
13	0.596	2.709	81.718						
14	0.532	2.420	84.138						
15	0.526	2.392	86.530						
16	0.493	2.241	88.771						
17	0.459	2.088	90.858						
18	0.449	2.040	92.899						
19	0.434	1.973	94.872						
20	0.399	1.812	96.684						
21	0.375	1.707	98.390						
22	0.354	1.610	100.000						

Figure 1
Scree Plot for Factor Analysis

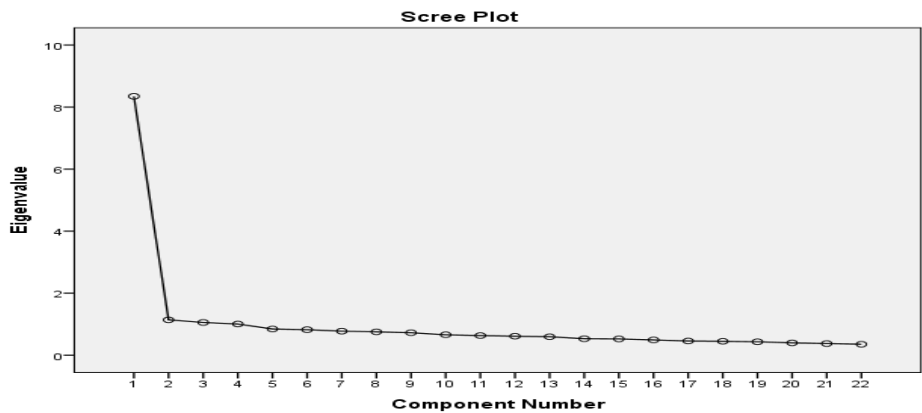


Table 3*Component Matrix and Rotation Component Matix*

Scale	Component Matrix Components				Rotated Component Matrix			
	1	2	3	4	1	2	3	4
sq2	0.612				0.599			
sq4	0.627				0.597			
sq5	0.621				0.435			
sq6	0.667				0.559			
sq7	0.592				0.592			
sq8	0.636				0.657			
sq9	0.578				0.424		0.581	
sq10	0.553						0.455	
sq11	0.645				0.452			
sq12	0.632				0.681			
sq13	0.598				0.534			
sq14	0.465	0.420	0.463				0.428	0.732
sq15	0.572	0.484						0.762
sq16	0.647				0.405	0.472		
sq17	0.524			0.512			0.654	
sq18	0.646					0.615		
sq19	0.720					0.522		
sq20	0.627					0.577		0.411
sq21	0.658					0.596		
sq22	0.670					0.466		
sq23	0.561		-0.476			0.672		
sq24	0.646					0.677		

Table 4*Component Transformation Matrix*

Factor	1	2	3	4
1	0.638	0.583	0.382	0.327
2	-0.597	0.335	-0.127	0.717
3	0.347	-0.707	-0.027	0.615
4	-0.339	-0.218	0.915	-0.019

Table 5*Reliability and Validity of Exploratory Factor Analysis Model*

Factors	AVE	CR	Cronbach alpha
Self-Regulation	0.328	0.812	0.849
Resilience	0.336	0.799	0.851
Detachment	0.324	0.585	0.583
Empathy	0.558	0.716	0.609

After the Exploratory Factor Analysis (EFA) and the extracted factors highlight the reliability and validity of the identified constructs based on the Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's alpha values which is presented in Table 5. For Self-Regulation, the AVE (0.328) is below the recommended threshold of 0.50, indicating limited convergent validity. However, the CR (0.812) and Cronbach's alpha (0.849) values exceed the acceptable thresholds, signifying

good internal consistency and high reliability. Similarly, Resilience shows an AVE of 0.336, suggesting limited convergent validity, while its CR (0.799) and Cronbach's alpha (0.851) indicate acceptable internal consistency and high reliability. In contrast, Detachment demonstrates weaker performance, with an AVE of 0.324, a CR of 0.585, and a Cronbach's alpha of 0.583, reflecting limited convergent validity, low internal consistency, and inadequate reliability. On the other hand, Empathy stands out with an AVE of 0.558, exceeding the recommended threshold and confirming good convergent validity. The CR (0.716) is within acceptable limits, though the Cronbach's alpha (0.609) is slightly below the ideal threshold of 0.70 but marginally acceptable for exploratory research. Overall, while factors like Self-Regulation, Resilience, and Empathy exhibit strong reliability and acceptable internal consistency, the results suggest that Detachment requires refinement to enhance its validity and reliability. Additionally, the AVE values for most constructs, except Empathy, highlight the need to improve convergent validity across these factors which is moderately acceptable.

Confirmatory factor analysis.

The results of the Confirmatory Factor Analysis (CFA) provide a thorough evaluation of the model's goodness-of-fit and the relationships between observed and latent variables (Hooper, Coughlan and Mullen, 2008). The fit indices presented in Table 6 confirm that the hypothesized model demonstrates an acceptable fit to the data. The normed chi-square value ($CMIN/df = 2.179$) is below the recommended threshold of 5, indicating a good model fit. The Goodness-of-Fit Index ($GFI = 0.929$) and Adjusted Goodness-of-Fit Index ($AGFI = 0.911$) exceed the acceptable cutoff of 0.90, signifying a high degree of model fit. The Root Mean Square Error of Approximation ($RMSEA = 0.048$) falls well within the acceptable range, indicating a close fit to the data. While the Normed Fit Index ($NFI = 0.893$) is slightly below the ideal threshold of 0.90, it still reflects a satisfactory fit. Incremental fit indices such as the Comparative Fit Index ($CFI = 0.939$), Tucker Lewis Index ($TLI = 0.930$), and Incremental Fit Index ($IFI = 0.939$) are all above 0.90, confirming excellent model fit. Parsimony-adjusted indices, including the Parsimony Goodness-of-Fit Index ($PGFI = 0.745$), Parsimony Comparative Fit Index ($PCFI = 0.825$), and Parsimony Normed Fit Index ($PNFI = 0.785$), exceed the minimum threshold of 0.50, ensuring a balance between model complexity and fit. Collectively, these indices validate the adequacy of the measurement model.

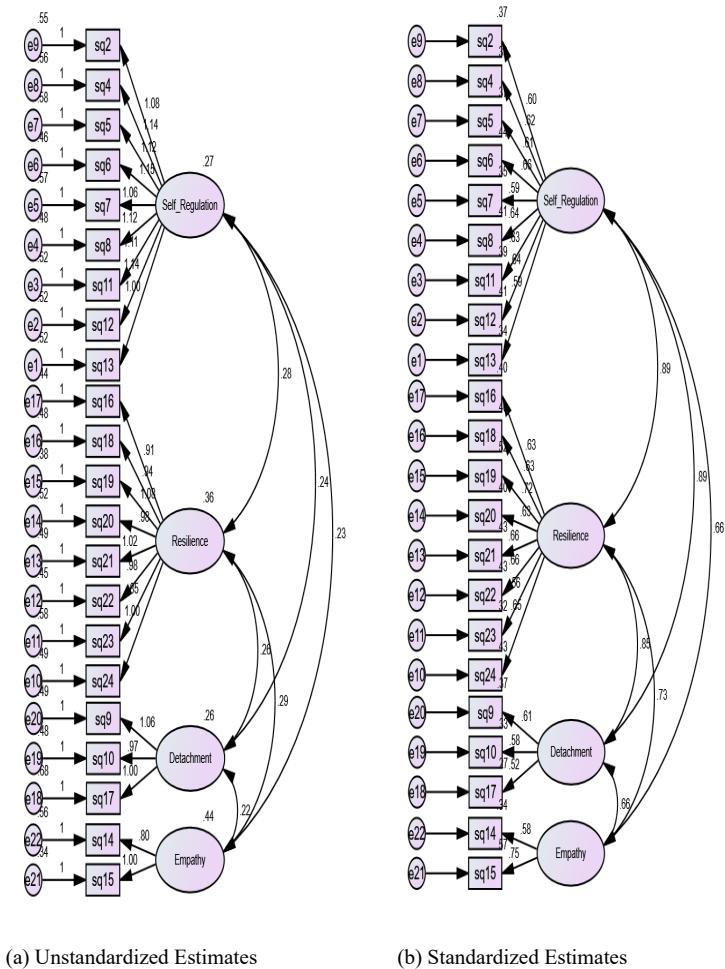
Overall, the CFA results confirm that the latent constructs—Self-Regulation, Resilience, Detachment, and Empathy are reliably measured by their respective indicators. The statistically significant relationships ($p < 0.001$) across all items provide robust evidence for the validity of the measurement model, supporting its use in subsequent analyses. Hence, with the fulfilment of all reliability and

validity conditions, the confirmatory factor analysis model is effective for assessing the contribution of the factors in measuring Heal-thy Life Spiritual Psychology Assessment Scale (HLSPAS) for adults and adolescents.

Table 6
Model Fit Indices for Confirmatory Factor Analysis

Name of Index	Index Value	Adequate fit
CMIN/Df (normed/relative Chi-Square)	2.179	Less than 5
GFI (Goodness of fit)	0.929	Greater than 0.90
AGFI (adjusted goodness of fit)	0.911	Greater than 0.90
RMSEA (root mean square of approximation)	0.048	Less than 0.10
NFI (normal fit index)	0.893	Greater than 0.90
CFI (comparative fit index)	0.939	Greater than 0.90

Figure 2
Confirmatory Factor Analysis Model



Discussion

The Heal-ty Life Spiritual Psychology Assessment Scale offers a holistic tool for measuring spiritual wellness across emotional, mental, and behavioral dimensions. Compared to scales like the Spiritual Well-Being Scale (SWBS) and the Daily Spiritual Experience Scale (DSES), which emphasize religious and experiential aspects, the Heal-ty Life Spiritual Psychology Assessment Scale takes a broader approach, including dimensions such as detachment and simplicity (Ellison, 1983; Underwood & Teresi, 2002). Confirmatory Factor Analysis (CFA) further validated the model, with fit indices within acceptable thresholds (CFI = 0.939, RMSEA = 0.048). When compared to the Fetzer (1999) Multidimensional Measurement of Religiousness/Spirituality (MMRS), the Heal-ty Life Spiritual Psychology Assessment Scale captures not only religious practices but also behavioral elements, such as adaptability (Idler et al., 2003). While the Spiritual Assessment Inventory (SAI) focuses on spiritual maturity, the Heal-ty Life Spiritual Psychology Assessment Scale uniquely integrates behavioral dimensions such as non-attachment (Hall & Edwards, 2002). Overall, its strong psychometric properties and comprehensive approach make it a robust tool for assessing spiritual wellness across diverse contexts.

The Heal-ty Life Spiritual Psychology Assessment Scale identified four factors that align with existing research on spiritual and psychological well-being, highlighting their relevance for holistic health. Self-Regulation (for Emotional and Cognitive Self-Regulation) encompasses variables related to emotional stability, positive thought generation, introversion-extroversion balance, self-awareness, and contentment. These reflect an individual's ability to regulate their thoughts and emotions consciously (Chiesa & Serretti, 2009; Kabat-Zinn, 2005). Resilience (Adaptive Resilience and Integrity) includes items that emphasize adaptability, fearlessness, straightforwardness, and maintaining consistency in thoughts, words, and actions, which are hallmarks of resilience and personal integrity (Brown & Ryan, 2003). Detachment (Detached and Uplifting Interactions) captures the ability to stay emotionally detached yet loving, to move from turbulence to positivity, and to interact without associating oneself with external attributes like body or status (Aich, 2013; Creswell & Lindsay, 2014). Empathy (Empathy and Receptivity) factor reflects understanding others' feelings and valuing their suggestions, indicative of an empathetic and open mindset (Goleman, 1995; Post, 2005). Silence and Solitude promotes inner reflection and growth through practices like meditation, supported by items on transitioning between sound and silence (Dysinger & Luke, 2020; Leary & Guadagno, 2011). Clarity and Simplicity of Action, central to spiritual traditions, is reflected in purposeful living and simplicity (Radhakrishnan, 1953; Yang, Lin & Culham, 2019). Intellectual Honesty emphasizes transparency and authentic communication (Carter, 1996; Seligman, 2002). Finally, Detachment from Ego and Excuses focuses on humility and spiritual awareness by transcending ego-driven behaviors (Tolle, 2005).

The current model suggests that the integration of mindfulness with the awareness of internal bodily states (interoception) and the balanced experience of emotions such as silence and happiness can lead to a more resilient psychological state. Previous studies have separately underscored the benefits of mindfulness and interoception in managing stress, anxiety, and depression, and in enhancing overall mental health (Hölzel et al., 2011; Khalsa et al., 2018). Moreover, the applicability and effectiveness of this integrated model may vary across different cultural and demographic groups. Cultural differences in the interpretation of mindfulness and the practices associated with interoception and spiritual expressions may influence the outcomes of such interventions. For instance, Western populations may interpret and engage with mindfulness differently compared to Eastern populations, where many of these practices originated (Christopher, Charoensuk, Gilbert, Neary & Pearce, 2009).

Understanding the mechanisms through which mindfulness, interoception, and dual emotions interact to enhance well-being is also crucial. It is hypothesized that mindfulness enhances one's sensitivity to interoceptive signals, which in turn promotes a better regulation of emotions (Farb et al., 2013b). This emotional regulation could be pivotal in cultivating states of silence (reduced mental chatter) and happiness (positive social connectivity), each contributing uniquely to psychological resilience and well-being. Neuroscientific studies employing techniques such as fMRI could provide insights into the brain areas activated by these practices and their interaction effects, offering a biological underpinning to the psychological and emotional benefits observed (Critchley, Wiens, Rotshtein, Ohman & Dolan, 2004).

Recommendations

The specific interaction between these practices, combined with the strategic cultivation of dual emotions through spiritual practices, remains less explored. Future studies should aim to empirically test this model using both quantitative and qualitative methodologies to capture its potential impacts comprehensively. Longitudinal designs could elucidate how these practices affect psychological well-being over time, while experimental studies could explore the immediate effects of these interventions on stress reactivity and emotional resilience (Davidson & McEwen, 2012). Similarly, age and socioeconomic status might affect accessibility and responsiveness to the interventions proposed. Therefore, further research is needed to adapt and test these interventions across diverse groups to ensure their broad applicability and effectiveness.

From an applied perspective, developing intervention programs that operationalize this model could be revolutionary in mental health and well-being promotion. Such programs would need to be tailored to individual needs, incorporating flexible modules that address specific aspects such as developing mindfulness, enhancing interoceptive awareness, or balancing silence and happiness according to personal

or cultural preferences. Additionally, integrating technology, such as mobile apps for mindfulness and interoception training, could enhance accessibility and engagement with these practices (Plaza, Demarzo, Harrera-Mercadal & Garcia-Campayo, 2013).

On a policy level, integrating evidence-based practices stemming from this model into public health initiatives could promote mental health on a larger scale. Educating healthcare providers, educators, and employers about the benefits and methods of integrating mindfulness, interoception, and dual emotions into daily routines could foster a more resilient society. Public health campaigns could focus on raising awareness and providing resources for self-care strategies that incorporate these elements.

While the proposed model of integrating mindfulness, interoception, and dual emotions enriched by spiritual practices is compelling, it is imperative that future research substantiates its effectiveness across diverse populations and settings. This would not only enhance the scientific understanding of these practices but also maximize their potential in improving psychological well-being on a broader scale.

Conclusion

The “Heal-thy Life Spiritual Psychology Assessment Scale” demonstrates strong psychometric properties across multiple analyses, including EFA, CFA, and reliability. Its four-factor structure captures a comprehensive range of spiritual dimensions, offering a more holistic approach compared to existing spiritual assessment scales. The scale’s excellent reliability supports its use in longitudinal studies and interventions, while the combination of emotional, mental, and behavioral factors makes it a unique tool in the assessment of spiritual wellness. Future research should focus on cross-cultural validation and further exploring the applicability of this scale in diverse populations.

The integration of mindfulness and interoception with the dual emotions of silence and happiness, as grounded in spiritual traditions, presents a promising and innovative approach to enhancing psychological well-being and health. This comprehensive model highlights the potential of combining ancient wisdom with modern psychological practices to foster a deeper sense of inner peace and external social connectedness, which are essential components of sustained well-being.

Limitations

Despite the promising psychometric properties of the Heal-thy Life Spiritual Psychology Assessment Scale, several limitations must be considered. While the scale was designed to measure universal aspects of spiritual wellness, cultural specificity may affect item interpretation, and cross-cultural validity was not tested, warranting further research in diverse contexts. The reliance on self-reported data introduces potential

bias, such as social desirability, and future studies could include objective measures to mitigate this issue. Additionally, the scale has not been tested in clinical or intervention-based settings, limiting its applicability in therapeutic contexts. Some factors, such as Self-Awareness and Emotional Clarity, may overlap conceptually, necessitating further refinement to ensure distinctiveness. Finally, more direct comparisons with a broader range of spiritual and psychological measures are needed to assess the scale's advantages and limitations fully. Addressing these issues in future research will enhance the scale's applicability and accuracy across various populations and contexts.

Acknowledgments. Authors would like to thank all the participants who are involved in the study. Authors extend their gratitude towards the Institutions and the Management for all the infrastructure and mental support provided, to carry out and complete this research article.

Authors Contribution.

Conceptualization, A.D., Formal analysis, J.A.K.; Methodology, A.D., J.A.K., D.B.; Project administration, A.D., P.S., D.B.; Supervision, S.N., P.S., D.B.; Validation, J.A.K., S.N., P.S., D.B.; Writing – original draft, A.D.; Writing – review & editing, J.A.K., A.D., S.N., P.S., D.B.; All authors gave final approval for publication and agreed to be held accountable for the work performed therein.

Peer-review. This study was carefully reviewed by several experts in the field, with revisions incorporated based on their insightful recommendations. We sincerely thank all of them, as well as the editor, for their contributions.

Funding. The authors declare that no funds, no grants, were received during this research.

Data Availability Statements. The data supporting the findings of this study are available from the author upon reasonable request.

Disclosure statement. The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Approval. This study was accorded Ethical Committee Approval vide Institutional Ethics Committee: 1) Meenakshi Medical College Hospital & Research Institute (DHR Registration No: EC/NEW/ INST/2021/2220) Reference number: MMCHRI IEC/ PhD/ 20/ JUNE/ 23 dated 26.06.23 and 2) Meenakshi Academy of Higher Education and Research (DHR Reg.No: EC/NEW/ INST/2023/3553 and CDSCO Reg. No: ECR/1906/INST/TN/2023). Reference number: MAHER/IEC/ PhD/80/Nov24 dated 27.01.25. The study was carried out in accordance with the principles as enunciated in the Declaration of Helsinki.

References

- Afrasiabifar, A., Mosavi, A., Taghipour Jahromi, A., & Hosseini, N. (2021). Randomized Controlled Trial Study of the Impact of a Spiritual Intervention on Hope and Spiritual Well-Being of Persons with Cancer. *Investigacion y educacion en enfermeria*, 39 (3), e08. <https://doi.org/10.17533/udea.ice.v39n3e08>
- Aich, T. K. (2013). Buddha Philosophy and Western Psychology. *Indian Journal of Psychiatry* 55 (Suppl. 2), S165–S170. <https://doi.org/10.4103/0019-5545.105517>
- Alexander, R., Aragón, O. R., Bookwala, J., Cherbuin, N., Gatt, J. M., Kahrilas, I. J., Kästner, N., Lawrence, A., Lowe, L., Morrison, R. G., Mueller, S. C., Nusslock, R., Papadelis, C., Polnaszek, K. L., Richter, S. H., Silton, R. L., & Styliadis, C. (2021). The neuroscience of positive emotions and affect: Implications for cultivating happiness and wellbeing. *Neuroscience & Biobehavioral Reviews*, 121, 220–249. <https://doi.org/10.1016/j.neubiorev.2020.12.002>
- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, 13(1), 27-45. <https://doi.org/10.1177/1073191105283504>
- Boateng, G. O., Torsten. B. N., Edward. A. F., Hugo R. M., & Sera L. Y. (2018). Best Practices for Developing and Validating Scales for Health, Social, and Behavioral Research: A Primer. *Frontiers in Public Health* 6, 149. <https://doi.org/10.3389/fpubh.2018.00149>
- Bornemann, B., Herbert, B. M., Mehling, W. E., & Singer, T. (2015). Differential changes in self-reported aspects of interoceptive awareness through 3 months of contemplative training. *Frontiers in Psychology*, 5, 1504. doi: 10.3389/fpsyg.2014.01504
- Brown, K. W., & Ryan R. M. (2003). The Benefits of Being Present: Mindfulness and Its Role in Psychological Well-Being. *Journal of Personality and Social Psychology*, 84(4), 822–828. <https://doi.org/10.1037/0022-3514.84.4.822>
- Wendy C., & Julia B. (2015). The Evolution of Spiritual Assessment Tools in Healthcare. *Society* 52 (5), 430–437. <https://doi.org/10.1007/s12115-015-9926-y>
- Carmody, J., & Baer, R. A. (2008). Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program. *Journal of Behavioral Medicine*, 31(1), 23–33. <https://doi.org/10.1007/s10865-007-9130-7>
- Carter, S. L., (1996). *Integrity*. New York: HarperCollins.
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *Journal of Alternative and Complementary Medicine*, 15(5), 593–600. <https://doi.org/10.1089/acm.2008.0495>
- Christopher, M. S., Charoensuk, S., Gilbert, B. D., Neary, T. J., & Pearce, K. L. (2009). Mindfulness in Thailand and the United States: A case of apples versus oranges? *Journal of Clinical Psychology*, 65(6), 590–612. <https://doi.org/10.1002/jclp.20580>
- Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). New York, NY: John Wiley & Sons.
- Costello, A. B., & Osborne, J. (2005). Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis. *Practical Assessment, Research, and Evaluation* 10(1), 7. <https://doi.org/10.7275/jyj1-4868>
- Craig, A. D. (2002). How do you feel? Interoception: the sense of the physiological condition of the body. *Nature Reviews Neuroscience*, 3(8), 655-666. <https://doi.org/10.1038/nrn894>

- Creswell, J. D., & Lindsay, E. K. (2014). How Does Mindfulness Training Affect Health? A Mindfulness Stress Buffering Account. *Current Directions in Psychological Science*, 23(6), 401–407. <https://doi.org/10.1177/0963721414547415>
- Critchley, H. D., & Garfinkel, S. N. (2017). Interoception and emotion. *Current Opinion in Psychology*, 17, 7-14. <https://doi.org/10.1016/j.copsyc.2017.04.020>
- Critchley, H. D., Wiens, S., Rotshtein, P., Ohman, A., & Dolan, R. J. (2004). Neural systems supporting interoceptive awareness. *Nature Neuroscience*, 7(2), 189-195. <https://doi.org/10.1038/nn1176>
- Daaleman, T. P., & Frey, B. B. (2004). The Spirituality Index of Well-Being: A New Instrument for Health-Related Quality-of-Life Research. *Annals of Family Medicine* 2(5), 499–503. <https://doi.org/10.1370/afm.89>
- Dambrun, M., & Ricard, M. (2011). Self-Centeredness and Selflessness: A Theory of Self-Based Psychological Functioning and Its Consequences for Happiness. *Review of General Psychology*, 15(2), 138-157. <https://doi.org/10.1037/a0023059>
- Dana, A. (2021). Consciousness, cognition, neuroses and the practice of Rajyoga. *Mind and Society*, 10(03-04), 139-146. <https://doi.org/10.56011/mind-mri-103-420227>
- Dana, A. (2022). Back to science of consciousness: Science of Raja Yoga and the need for reversal of psychological paradigm. *Mind and Society*, 11(01), 67-73. <https://doi.org/10.56011/mind-mri-111-20229>
- Darvyri, P. , Galanakis, M. , Avgoustidis, A. , Vasdekis, S. , Artemiadis, A. , Tigani, X. , Chrousos, G. & Darviri, C. (2014).The Spiritual Well-Being Scale (SWBS) in Greek Population of Attica. *Psychology*, 5(13), 1575–1582. <https://doi.org/10.4236/psych.2014.513168>
- Davidson, R. J., Jackson, D. C., & Kalin, N. H. (2000). Emotion, plasticity, context, and regulation: Perspectives from affective neuroscience. *Psychological Bulletin*, 129(6), 925–945. <https://doi.org/10.1037/0033-2909.126.6.890>
- Davis, B. W. (2022). Zen Pathways: An Introduction to the Philosophy and Practice of Zen Buddhism. Oxford University Press. <https://doi.org/10.1093/oso/9780197573686.001.0001>
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., Urbanowski, F., Harrington, A., Bonus, K., & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine*, 65(4), 564–570. <https://doi.org/10.1097/01.psy.0000077505.67574.e3>
- Davidson, R. J., & McEwen, B. S. (2012). Social influences on neuroplasticity: Stress and interventions to promote well-being. *Nature Neuroscience*, 15(5), 689–695. <https://doi.org/10.1038/nn.3093>
- Du, S., Zhou, Z., Wang, C., Luan, Z., Wu, N., Chen, Y., & Peng, X. (2024). Spiritual Needs of Women with Breast Cancer: A Structural Equation Model. *European Journal of Oncology Nursing*, 71, 102647. <https://doi.org/10.1016/j.ejon.2024.102647>
- Dysinger, L. (2020). The ascetic life. In E. Howells & M. A. McIntosh (Eds.), *The Oxford handbook of mystical theology* (pp.138–145). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198722380.013.9>
- Ellison, C. W. (1983). Spiritual Well-Being: Conceptualization and Measurement. *Journal of Psychology and Theology*, 11(4), 330–340. <https://doi.org/10.1177/009164718301100406>

- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84(2), 377–389. <https://doi.org/10.1037/0022-3514.84.2.377>
- Erci, B., & Aslan, H. (2022). Validity and Reliability of the Turkish Version of the Spiritual Needs Assessment Scale of Patients with Cancer. *Palliative & Supportive Care*, 20(5), 671–677. <https://doi.org/10.1017/S1478951521001103>
- Farb, N. A., Segal, Z. V., & Anderson, A. K. (2013a). Attentional modulation of primary interoceptive and exteroceptive cortices. *Cerebral Cortex*, 23(1), 114–26. <https://doi.org/10.1093/cercor/bhr385>
- Farb, N. A. S., Segal, Z. V., & Anderson, A. K. (2013b). Mindfulness meditation training alters cortical representations of interoceptive attention. *Social Cognitive and Affective Neuroscience*, 8(1), 15–26. <https://doi.org/10.1093/scan/nss066>
- Fetzer Institute. (1999). *Multidimensional Measurement of Religiousness/Spirituality for Use in Health Research*. Fetzer Institute.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). Sage Publications.
- Fisher, J. W. (1999). Developing a Spiritual Health and Life-Orientation Measure for Secondary School Students. *Proceedings of the University of Ballarat* 15, 57–63.
- Fradelos, E. C., Alikari, V., Artemi, S., Missouridou, E., Mangoulia, P., Kyranou, M., Saridi, M., Toska, A., Tsaras, K., & Tzavella, F. (2024). A Mixed-Method Study on the Assessment of Factors Influencing Nurses' Provision of Spiritual Care. *Healthcare (Basel)* 12 (8), 854. <https://doi.org/10.3390/healthcare12080854>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226. <https://doi.org/10.1037//0003-066x.56.3.218>
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 359(1449), 1367–1378. <https://doi.org/10.1098/rstb.2004.1512>
- Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More than IQ*. Bantam Books.
- Grobler, A., & K. Sibanda. (2024). The Development and Validation of a Spiritual Leadership Scale within the South African Context. *SA Journal of Industrial Psychology*, 50, a2098. <https://doi.org/10.4102/sajip.v50i0.2098>
- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, 39(3), 281–291. <https://doi.org/10.1017/s0048577201393198>
- Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, 57(1), 35–43. [https://doi.org/10.1016/S0022-3999\(03\)00573-7](https://doi.org/10.1016/S0022-3999(03)00573-7)
- Hall, T. W., & Edwards, K. J. (2002). The Spiritual Assessment Inventory: A Theistic Model and Measure for Assessing Spiritual Development. *Journal for the Scientific Study of Religion*, 41(2), 341–357. <https://doi.org/10.1111/1468-5906.00121>
- Hodge, D. R. (2005). Developing a Spiritual Assessment Toolbox: A Discussion of the Strengths and Limitations of Five Different Assessment Methods. *Health & Social Work*, 30(4), 314–323. <https://doi.org/10.1093/hsw/30.4.314>
- Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78(2), 169–183. <https://doi.org/10.1037/a0018555>

- Hölzel, B. K., Carmody, J., Vangel, M., Congleton, C., Yerramsetti, S. M., Gard, T., & Lazar, S. W. (2011). Mindfulness practice leads to increases in regional brain gray matter density. *Psychiatry Research: Neuroimaging*, 191(1), 36–43. <https://doi.org/10.1016/j.psychresns.2010.08.006>
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural Equation Modeling : Guidelines for Determining Model Fit. *The Electronic Journal of Business Research Methods*, 6(1), 53–60.
- Hutcherson, C. A., Seppala, E. M., & Gross, J. J. (2015). The neural correlates of social connection. *Cognitive, Affective, & Behavioral Neuroscience*, 15(1), 1–14. <https://doi.org/10.3758/s13415-014-0304-9>
- Idler, E. L., Musick, M. A., Ellison, C. G., George, L. K., Krause, N., Ory, M. G., Pargament, K. I., Powell, L. H., Underwood, L. G., & Williams, D. R. (2003). Measuring Multiple Dimensions of Religion and Spirituality for Health Research: Conceptual Background and Findings from the 1998 General Social Survey. *Research on Aging*, 25(4), 327–365. <https://doi.org/10.1177/0164027503025004001>
- Jabarali, A. K., Sathya K. H., & Barak, Y. S. (2024). Analyzing the COVID-19 Pandemic's Effects on College Students: E-Learning Experience, Challenges and Resource Awareness. *Journal of Library & Information Services in Distance Learning*, 18(1–2), 18–37. <https://doi.org/10.1080/1533290X.2024.2332806>
- Jeste, D. V., Thomas, M. L., Liu, J., Daly, R. E., Tu, X. M., Treichler, E. B. H., Palmer, B. W., & Lee, E. E. (2021). Is Spirituality a Component of Wisdom? Study of 1,786 Adults Using Expanded San Diego Wisdom Scale (Jeste-Thomas Wisdom Index). *Journal of Psychiatric Research*, 132, 174–181. <https://doi.org/10.1016/j.jpsychires.2020.09.026>
- Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hyperion.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156. <https://doi.org/10.1093/clipsy.bpg016>
- Kabat-Zinn, J. (2005). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness* (15th anniversary ed.). Delta Trade Paperback/Bantam Dell.
- Kass, J. D., Friedman, R., Leserman, J., Caudill, M., Zuttermeister, P. C., & Benson, H. (1991). An Inventory of Positive Psychological Attitudes with Potential Relevance to Health Outcomes: Validation and Preliminary Testing. *Behavioral Medicine*, 17(3), 121–129. <https://doi.org/10.1080/08964289.1991.9937555>
- Keltner, D., & Haidt, J. (2003). Approaching awe, a moral, spiritual, and aesthetic emotion. *Cognition and Emotion*, 17(2), 297–314. <https://doi.org/10.1080/02699930302297>
- Khalsa, S. S., Adolphs, R., Cameron, O. G., Critchley, H. D., Davenport, P. W., Feinstein, J. S., Feusner, J. D., Garfinkel, S. N., Lane, R. D., Mehling, W. E., Meuret, A. E., Nemeroff, C. B., Oppenheimer, S., Petzschner, F. H., Pollatos, O., Rhudy, J. L., Schramm, L. P., Simmons, W. K., Stein, M. B., Stephan, K. E., Van den Bergh, O., Van Diest, I., von Leupoldt, A., Paulus, M. P., & Interoception Summit 2016 participants. (2018). Interoception and Mental Health: A Roadmap. *Biol Psychiatry Cogn Neurosci Neuroimaging*, 3(6), 501–513. <https://doi.org/10.1016/j.bpsc.2017.12.004>
- Killingsworth, M. A., & Gilbert, D. T. (2010). A wandering mind is an unhappy mind. *Science*, 330(6006), 932. <https://doi.org/10.1126/science.1192439>
- Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling*. (4th ed.). Guilford Press.

- Krause, N. (2006). Gratitude Toward God, Stress, and Health in Late Life. *Research on Aging*, 28(2), 163-183. <https://doi.org/10.1177/0164027505284048>
- Lawlor, M. S. (2016). Mindfulness and Social Emotional Learning (SEL): A Conceptual Framework. In K. Schonert-Reichl & R. Roeser (Eds.), *Handbook of Mindfulness in Education. Mindfulness in Behavioral Health*. Springer, New York, NY. https://doi.org/10.1007/978-1-4939-3506-2_5
- Leary, M. R., & Guadagno, J. (2011). *The sociometer, self-esteem, and the regulation of interpersonal behavior. Handbook of self-regulation: Research, theory, and applications*. The Guilford Press.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. Guilford Press.
- Lo, G., Chen, J., Wasser, T., Portenoy, R., & Dhingra, L. (2016). Initial Validation of the Daily Spiritual Experiences Scale in Chinese Immigrants with Cancer Pain. *Journal of Pain and Symptom Management*, 51(2), 284–291. <https://doi.org/10.1016/j.jpainsymman.2015.10.002>
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131(6), 803-855. <https://doi.org/10.1037/0033-2909.131.6.803>
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, 9(2), 111–131. <https://doi.org/10.1037/1089-2680.9.2.111>
- Manna, S., Udayaraj, A., Grover, S., & Kumar, V. (2024). Spiritual Health and Its Determinants among Urban Adolescents in Northern India: A Cross-Sectional Survey. *Cureus*, 16(4), e58609. <https://doi.org/10.7759/cureus.58609>
- Mehling, W. E., Price, C., Daubenmier, J. J., Acree, M., Bartmess, E., & Stewart, A. (2012). The Multidimensional Assessment of Interoceptive Awareness (MAIA). *PloS one*, 7(11), e48230. <https://doi.org/10.1371/journal.pone.0048230>
- Mokkink, L. B., Terwee, C. B., Knol, D. L., Stratford, P. W., Alonso, J., Patrick, D. L., Bouter, L. M., & de Vet, H. C. (2010). The COSMIN Checklist for Evaluating the Methodological Quality of Studies on Measurement Properties: A Clarification of Its Content. *BMC Medical Research Methodology*, 10 (22). <https://doi.org/10.1186/1471-2288-10-22>
- Monod, S. M., Rochat, E., Büla, C. J., Jobin, G., Martin, E., & Spencer, B. (2010). The Spiritual Distress Assessment Tool: An Instrument to Assess Spiritual Distress in Hospitalized Elderly Persons. *BMC Geriatrics*, 10 (88). <https://doi.org/10.1186/1471-2318-10-88>
- Musa, A. S. (2017). Spiritual Care Intervention and Spiritual Well-Being: Jordanian Muslim Nurses' Perspectives. *Journal of Holistic Nursing*, 35(1): 53–61. <https://doi.org/10.1177/0898010116644388>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Paloutzian, R. F., & Ellison, C. W. (1982). Loneliness, Spiritual Well-Being, and the Quality of Life. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A Sourcebook of Current Theory, Research, and Therapy*, (pp. 224–236). John Wiley & Sons.
- Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*, 56(4), 519-543. [https://doi.org/10.1002/\(sici\)1097-4679\(200004\)56:4<519::aid-jclp6>3.0.co;2-1](https://doi.org/10.1002/(sici)1097-4679(200004)56:4<519::aid-jclp6>3.0.co;2-1)
- Paulus, M. P., & Stein, M. B. (2010). Interoception in anxiety and depression. *Brain Structure and Function*, 214(5-6), 451-463. <https://doi.org/10.1007/s00429-010-0258-9>

- Plaza, I., Demarzo, M. M., Herrera-Mercadal, P., & Garcia-Campayo, J. (2013). Mindfulness-based mobile applications: Literature review and analysis of current features. *JMIR mHealth and uHealth*, 1(2), e24. <https://doi.org/10.2196/mhealth.2733>
- Post, S. G. (2005). Altruism, happiness, and health: It's good to be good. *International Journal of Behavioral Medicine*, 12(2), 66-77. https://doi.org/10.1207/s15327558ijbm1202_4
- Radhakrishnan, S., (1953). *The Bhagavadgītā: With an Introductory essay*, Sanskrit text, English translation, and notes. George Allen and Unwin Ltd.
- Rahimaghaee, F., Vizheh, M., & Hatamipour, K. (2022). Development and Psychometric Properties of a Spiritual Needs Assessment Scale for Patients with COVID-19. *Journal of Psychosocial Nursing and Mental Health Services*, 60(4), 47–54. <https://doi.org/10.3928/02793695-20211014-01>
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141>
- Ryan, R. M., Huta, V., & Deci, E. L. (2008). Living well: A self-determination theory perspective on eudaimonia. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 9(1), 139–170. <https://doi.org/10.1007/s10902-006-9023-4>
- Schmautz, B., Fuchshuber, J., Andres, D., Prandstätter, T., Roithmeier, L., Freund, A., & Unterrainer, H. F. (2024). Is There an Affective Neuroscience of Spirituality? The Development and Validation of the OCEANic Feelings Scale. *Frontiers in Human Neuroscience*, 18, 1329226. <https://doi.org/10.3389/fnhum.2024.1329226>
- Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. Guilford Press.
- Seligman, M. E. P., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist*, 61(8), 774–788. <https://doi.org/10.1037/0003-066X.61.8.774>
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology. An introduction. *The American psychologist*, 55(1), 5–14. <https://doi.org/10.1037//0003-066x.55.1.5>
- Seligman, M. E. P. (2002). *Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment*. Free Press.
- Sheldon, K. M., Ryan, R. M., Deci, E. L., & Kasser, T. (2004). The Independent Effects of Goal Contents and Motives on Well-Being: It's Both What You Pursue and Why You Pursue It. *Personality and Social Psychology Bulletin*, 30(4), 475-486. <https://doi.org/10.1177/0146167203261883>
- Siegel, R. D. (2010). *The mindfulness solution: Everyday practices for everyday problems*. Guilford Press.
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80–93. <https://doi.org/10.1037/0022-0167.53.1.80>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Pearson.
- Tolle, E. (2005). *A new earth: Awakening to your life's purpose*. Penguin.
- Tomás, C., & Moreira, A. (2024). Battles of the Soul: Validation of the Scale of Religious and Spiritual Struggles (RSS) for the Portuguese Population. *Journal of Religion and Health*, 63(2), 1623–1641. <https://doi.org/10.1007/s10943-023-01953-x>

- Underwood, L. G. (2011). The Daily Spiritual Experience Scale: Overview and Results. *Religions*, 2(1), 29–50. <https://doi.org/10.3390/rel2010029>
- Underwood, L. G., & Teresi, J. A. (2002). The Daily Spiritual Experience Scale: Development, Theoretical Description, Reliability, Exploratory Factor Analysis, and Preliminary Construct Validity Using Health-Related Data. *Annals of Behavioral Medicine : a publication of the Society of Behavioral Medicine*. 24 (1), 22–33. https://doi.org/10.1207/S15324796ABM2401_04
- Vago, D., & Silbersweig, D. (2012). Self-awareness, self-regulation, and self-transcendence (S-ART): A framework for understanding the neurobiological mechanisms of mindfulness. *Frontiers in Human Neuroscience*, 6. <https://doi.org/10.3389/fnhum.2012.00296>
- Yang, F., Lin, J., & Culham, T. (2019). From Intimidation to Love: Taoist Philosophy and Love-Based Environmental Education. *Educational Philosophy and Theory*, 51(11), 1117–1129. <https://doi.org/10.1080/00131857.2018.1564659>

Appendix 1

Heal-thy Life Spiritual Psychology Assessment Scale (HLSPAS)

Please read each statement and circle a number 3, 2, 1 or 0 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. The scale can be completed within 8-10 minutes.

The rating scale is as follows:

- 3 - Applied to me very much, or most of the time
- 2 - Applied to me to a considerable degree, or a good part of time
- 1 - Applied to me to some degree, or some of the time
- 0 - Did not apply to me at all

Name:

Age:

Description	3	2	1	0
1. I can halt my thoughts to experience natural love, happiness, and bliss at will.				
2. If peace eludes me, I can effortlessly generate pure and positive thoughts.				
3. I preserve warmth in my behaviour by not dwelling on my or others' past.				
4. I'm content and foster contentment with pure-positive thoughts for myself and others.				
5. I can ground myself as an introvert or extrovert at will.				
6. I naturally settle into self-awareness when tasks or thoughts conclude.				
7. I can swiftly shift from turbulent emotions to uplifting feelings.				
8. I approach actions, even speech, as a loving yet detached guest.				
9. I am easy and simple in thoughts, words, and actions, speaking briefly and sweetly.				
10. I always remember my naturally cheerful inner self.				
11. I remain stable amid praise, criticism, gain, or loss.				
12. I can understand others' feelings.				
13. I value others' suggestions.				
14. My lightness enables understanding psychological and social aspects for solutions.				
15. While speaking, I don't associate myself with the body, image, or status.				
16. I'm content and unburdened by desires, facing situations fearlessly.				
17. I flexibly adapt to situations.				
18. I can cooperate with everyone.				
19. My thoughts, words, actions, and relationships are uncomplicated and straightforward.				
20. I achieve success by planning my actions.				
21. I don't make excuses that hinder progress.				
22. I maintain consistency in thoughts, words, actions, behavior, and sleep.				



Navigating Faith in Clinical Practice: A Qualitative Study of Mental Health Professionals Working with Immigrant Clients

Sandra Dixon¹ 

Lethbridge University

Juliane Bell² 

Lethbridge University

¹ PhD, R.Psych., University of Lethbridge, Faculty of Education, TH309 4401 University Dr. W, Lethbridge, AB, T1K 3M4. E-mail: sandra.dixon@uleth.ca

² University of Lethbridge, Canada. E-mail: juliane.bell@uleth.ca

Abstract

In Canada's multicultural society, faith plays a vital role in the lives of many immigrants. However, mental health professionals (MHPs) often overlook or disregard immigrant clients' spiritual and religious beliefs, despite their potential impact on mental health and coping mechanisms. Grounded in social constructionism, this qualitative study recognizes that faith is constructed and negotiated through social interactions and relationships. To address the gap in faith-informed practice, this study explored how MHPs navigate faith in clinical practice through interviews with 10 MHPs in Alberta, Canada. Eight core themes emerged: Conceptualization of Faith, Strategies for Incorporating Faith into Practice, Fostering Strong Client Relationships, Faith Informing Practice and Professional Growth, Faith as a Salient Dimension of Mental Health, Faith Competence in Multicultural Practice for Client-Centered Care, Pathways for Faith-Based Training and Learning, and Barriers to Integrating Faith. The study contributes to scholarship on clinical practice and faith, highlighting the need for faith competence in mental health care. The discussion examines building faith competence, overcoming barriers, and implications for theory, practice, and policymaking. Limitations, strengths, and future directions are also discussed. This study provides long-term recommendations for MHPs to deliver inclusive care that dignifies the diverse faith beliefs and worldviews of their clients.

Keywords:

Client-centered care • clinical practice • faith • immigrants • mental health professionals

Corresponding author:

Sandra Dixon

E-mail: sandra.dixon@uleth.ca

eISSN: 2458-9675

Received: 31.12.2024

Revision: 28.02.2025

Accepted: 14.03.2025

©Copyright 2025 by Author(s)

Citation: Dixon, S. & Bell, J. (2025). Navigating faith in clinical practice: A qualitative study of mental health professionals working with immigrant clients. *Spiritual Psychology and Counseling*, 10(2), 189–227. <http://doi.org/10.37898/spiritualpc.1610763>

Introduction

Canada's cultural diversity is shaped by immigration, with approximately 500,000 new immigrants arriving annually (Statistics Canada, 2024). As of 2024, immigrants make up about 20% of the country's population of over 40 million people (Statistics Canada, 2024). For the purpose of this research, the term *immigrants* refer specifically to individuals who have permanent residency and legal rights in Canada, excluding refugees, temporary foreign workers, and those with student or working visas (Opeskin et al., 2012; Pero, 2018). Categorized by a diverse religious landscape, the country comprises of 63.2% Christians, 3.7% Muslims, 1.7% Hindus, 1.4% Buddhists, 1.4% Sikhs, 1.0% Jews, and 1.2% adherents of other religious and spiritual traditions (Cornelissen, 2021). Meanwhile, 26.3% of the population identifies as having no religion or secular perspectives, highlighting the nation's religious diversity and pluralism (Cornelissen, 2021). Alberta, Canada's fourth largest province and part of the Bible Belt (Reimer, 2003), has a population of 4,849,906 that grew 4.41% in the past year (Government of Alberta, 2024). The population identifies as 48.1% Christian, 40.1% non-religious, and 11.8% other religions (Statistics Canada, 2022). Canada's diverse cultural and religious landscapes are integral to its identity and strength, with religion playing a significant role in shaping beliefs and practices. *Religion* is a vital part of Canadian culture, shaping beliefs and practices. It is defined as a set of cultural and traditional beliefs and practices tied to a group or community, often involving a higher power (Dixon & Arthur, 2019).

As the nation's religious fabric continues to evolve, Alberta's success depends on fostering a sense of belonging among immigrants (Government of Alberta, 2024). This population expansion requires us to see the worth of immigrants' unique backgrounds, intersectional cultural identities, and faith dimensions (Dixon, 2015, 2016). Both faith and spirituality are essential aspects of immigrants' identity. *Faith* is understood as personal belief and commitment to a religion or spiritual practice (Koenig, 2012), while *spirituality* describes an individual's search for meaning and connection to something greater than themselves (Dixon & Arthur, 2019). Although distinct in their conceptualization, the terms "faith," "religion," and "spirituality" will be used interchangeably in this paper, recognizing their complex and nuanced intersections. More so, for many immigrants, these terms are subjective in nature with commonalities across their lived experiences (e.g., Dixon, 2015; Dixon & Arthur, 2019). As such, in this paper, we adopt an inclusive and contextual understanding of faith, religion, and spirituality, recognizing their dynamic interplay and subjective interpretations. This understanding is crucial for *mental health professionals* (MHPs) working with diverse communities. In this context, MHPs include trained and regulated counselors, clinicians, psychologists, therapists, psychotherapists, and social workers serving immigrant clients from diverse faith backgrounds.

Spirituality is increasingly recognized as an essential aspect of cultural competence in mental health care when working with diverse clients (Dixon et al., 2023a; Maier et al., 2022). In this paper, *cultural competence* refers to the ability to understand, appreciate, and interact with people from cultures or belief systems different from one's own (DeAngelis, 2015). Scholarship shows that assimilating spirituality into clinical practice can elicit positive changes in mental health benefits and indirectly buttress client satisfaction (Koenig, 2010, 2012; Pargament et al., 2013). However, challenges persist, including lack of training and cultural competence among MHPs (Plumb, 2011; Vieten et al., 2023). To effectively support immigrant populations, MHPs must develop a nuanced understanding of clients' diverse religious and spiritual beliefs. This increased awareness will enable MHPs to integrate these diverse beliefs into their therapeutic work, providing culturally competent care.

These considerations are particularly important for MHPs who serve immigrants post-migration, as, the process of immigration often brings significant post-migration stressors, leading to challenges for their mental health and well-being (Dixon et al., 2023a; Salami et al., 2017). *Mental health* is defined as a state of well-being that enables individuals to cope with life's stresses, realize their potential, and contribute to their community (National Institute of Mental Health, 2024). Along similar lines, *mental well-being* is a multifaceted concept that embraces a sense of purpose, happiness, and fulfillment in life (Seligman, 2011); it is deeply rooted in the integration of psychological and physical health (Morgan & Simmons, 2021). Both concepts are crucial for Canadian immigrants, who initially arrive in better health than their Canadian-born counterparts, a phenomenon known as the *healthy immigrant effect* (Athari, 2020; Dixon et al., 2023b). However, research shows that immigrants' health declines over time, creating a paradox effect (Elshahat et al., 2022). This deterioration is attributed to *social determinants of health* (SDOH) conditions, including language barriers, unemployment, socioeconomic factors, and racism (Dixon et al., 2023c). SDOH encompasses social and economic factors like income, education, and employment, which impact health based on an individual's social position (Government of Canada, 2024).

For immigrant populations, faith and spirituality can often serve as vital coping mechanisms in the face of stress and trauma (Dixon et al., 2023a; Salami et al., 2017). Studies have consistently shown that spirituality is positively correlated with mental health outcomes, including reduced symptoms of anxiety and depression that might result from SDOH (Dixon et al., 2023b; Dixon et al., 2025; Rogers et al., 2021). Furthermore, faith communities play a significant role in supporting immigrant mental health, providing social support and cultural connection (Bernard et al., 2014; Dixon, 2015). Understanding the intersection of faith, spirituality, and mental health is crucial for MHPs to provide culturally sensitive care and tailored interventions

for immigrant clients. Here, we operationalize *culturally sensitive care* as honoring cultural variations, adapting interventions, and recognizing personal biases (Martinez & Mahoney, 2022; Okoniewski et al., 2022).

Despite the critical role of faith in immigrant clients' lives, MHPs often struggle to integrate clients' religious beliefs into clinical practice, citing competence gaps and hesitation (Fukuyama & Sevig, 1999; Plumb, 2011; Rogers et al., 2021). This disconnect persists despite growing recognition of cultural competence as a necessary step in addressing immigrant-specific needs (Dixon, 2019; Vieten et al., 2023). Key barriers include language differences, cultural mismatches, and limited cultural humility among MHPs, hindering effective faith-centered care (Salami et al., 2017; Sue et al., 2019). In this paper, *cultural humility* is a lifelong process of self-reflection, learning, and growth to address power imbalances and cultural biases (Tervalon & Murray-Garcia, 1998). Anchored in our research, *faith-centered care* is predicated on the ability of MHPs to respectfully incorporate clients' multifaceted spiritual and religious identities into their practice. Moreover, traditional therapeutic models frequently lack a faith-informed framework, intensifying the need for culturally sensitive adaptations (Moodley & Barnes, 2015). To bridge this gap, this qualitative study elucidates how MHPs integrate faith into their practice with immigrant clients to build resiliency.

Theoretical Framework

This investigation is grounded in *Social Constructionist Theory*, which views reality as subjective, varied, and multi-layered, with meanings socially and historically negotiated (Burr, 2015; Edwards & Potter, 1992; Lock & Strong, 2021; Shotter, 1987). Well-suited to this qualitative study, this framework acknowledges the layered, interwoven, and context-dependent nature of faith (Dixon, 2015). Furthermore, faith is strongly ingrained in individuals' lived realities and socio-cultural contexts, deepening its complexity and transcendental significance (Dixon & Arthur, 2019). Moreover, social constructionism values that participants are experts in their own lived experiences (Gergen, 2015), embodying this ethos in the research approach.

By employing this theoretical framework, this study created a safe and nonjudgmental space for MHPs to share their personal experiences of integrating faith into clinical practice. This *brave space* encouraged open and honest sharing (Arao & Clemens, 2013), resulting in robust and contextual data that provided valuable insights into MHPs' faith competency. By adopting this stance, the investigation gained profound insight into how MHPs work with clients from diverse faith backgrounds, revealing implications for the mental health profession as a whole.

The Current Study and its Significance

This study is part of a larger project that investigates how 10 MHPs consider and incorporate faith practices in their clinical work with clients, together with exploring the experiences of 10 immigrant clients and the role of faith in their well-being. Our article primarily focuses on the former, examining how MHPs address and accommodate the faith-based beliefs and practices of their immigrant clients in therapy. It aims to shed light on a sparsely investigated aspect of existing literature by examining how faith is navigated by MHPs in immigrant client-practitioner relationships (Dixon, 2015; Dixon et al., 2023a). By scrutinizing spiritual beliefs in clinical practice, this work augments comprehension of the role faith plays in *client-centered* care that prioritizes autonomy, dignity, and well-being. (Sanerma et al., 2020). This construct calls for MHPs' ethical awareness when working with immigrant clients of faith, whose religious practices and spiritual experiences are often overlooked in therapeutic settings. (Canadian Counseling and Psychotherapy Association [CCPA], 2020; Canadian Psychological Association [CPA], 2017).

This research also unpacks the challenges of integrating faith in clinical practice, yielding new epiphanies into the intersection of faith and mental health (Pargament et al., 2013). It addresses a critical lacuna in mental health care by giving attention to faith-sensitive care, particularly when dealing with religious trauma (Dixon & Wilcox, 2016; Walker et al., 2011). In this context, we theorize *faith-sensitive care* as a practice that is attentive to and inclusive of the varied beliefs, values, and worldviews of clients from diverse faith backgrounds, cultures, and traditions. This study offers fresh insights into faith navigation in counseling, attending to therapeutic relationships that promote *client's holistic well-being* (Horvath et al., 2011). Moreover, our qualitative inquiry has significant implications, informing the development of faith-based frameworks like the *Free-Flowing Model of Faith* (FFMF). The FFMF, which emerged from themes identified in the broader study, represents a pioneering approach to integrating faith into clinical work. To our knowledge, it is the first comprehensive model to span counselor education, practice, and ongoing client interactions. By incorporating clients' faith beliefs and needs into their care, the FFMF has the potential to enhance therapeutic effectiveness and promote holistic well-being for diverse clients. A more detailed exploration of the FFMF will follow later in this article.

Method

Research Design

We employed a *descriptive qualitative research* (DQR) methodology to explore how MHPs integrate faith and spiritual practices into their clinical work. This approach was chosen for its ability to provide a meticulous description and interpretation of complex phenomena, such as faith integration in clinical practice (Colorafi & Evans, 2016; Sandelowski, 2000). The DQR approach also allowed us to collect rich and

exhaustive data through semi-structured interviews (Kim et al., 2017), gaining a thorough grasp of MHPs' experiences and perspectives. This methodology was ideal for achieving our study's aims: to perceive how MHPs integrate faith in their clinical practice and to identify associated challenges and strategies. As a result, this DQR enabled us to develop the FFMF, a culturally sensitive framework for understanding faith infusion in clinical practice and guiding contextually attuned care.

To analyze the data, we executed Braun and Clarke's (2006) "*Big Q*" *thematic analysis*, which takes into account the researcher's subjective stance and the socially constructed nature of knowledge. This approach involves systematic coding to identify patterns and themes, with an awareness of how researcher assumptions influence interpretation. To diminish potential biases, we engaged in reflexive practices throughout the analysis (Dixon & Chiang, 2020), examining our own positions and perspectives as researchers. By integrating "Big Q" thematic analysis with our DQR methodology, we gained a richer discernment of participants' lived experiences and viewpoints.

Ethics

To protect the rights and well-being of participants, this research adhered to necessary ethical considerations and was granted approval by the University of Lethbridge Human Subject Research Committee (HSRC). Participants were fully informed about the study's purpose, procedures, potential risks, benefits, and their rights. Informed consent was obtained from all participants, ensuring voluntary participation. While we could not guarantee complete anonymity and confidentiality, we took rigorous safeguards to protect participants' privacy to the best of our ability. To achieve this, we allowed participants to choose their preferred pseudonyms, which included names for some and initials for others. This autonomy gave participants a sense of agency, enabling us to balance privacy concerns and data collection requirements.

Sample

Our study's sample of 10 MHPs was selected based on specific inclusion criteria (see Table 1 below). The benchmarks required MHPs to be licensed with a regulatory body, be proficient in English, and possess experience in working with immigrant populations. The primary objective of this investigation was to assess MHPs' work with immigrant clients of faith, irrespective of their faith orientation. No restrictions were imposed on the ethnic backgrounds of participants to ensure diversity within the sample. The final number of participants recruited was selected based on the principle of *data saturation*, where no additional themes or ideas emerged from the data (Burmeister & Aitken, 2012).

Table 1.
MHPs' Demographic Characteristics

Age	31 to 66 years
Gender	6 - Female 4 - Male
Occupation	Social worker Registered psychologist Health/provisional psychologist Graduate practicum counselor Counselor
Race	3 - Black 3 - Caucasian 1 - South Asian 2 - African 1 - Mixed (Caucasian/Metis)
Cultural Background	European descent, Yoruba (Nigerian), Jamaican, Pakistani, African, Sudanese, Metis, British born
Faith Affiliation	3 - Christian 2 - Muslim 2 - Church of Jesus Christ of Latter-day Saints 1 - Buddhist 1 - None 1 - Catholic
Highest Level of Education Completed	9 - Master's degree 1 - PhD
Years of Counseling Experience	3 to 30 years

Recruitment and Data Collection

A combination of purposive and snowball sampling methods was used to recruit the participants for this study. *Purposive sampling* selects individuals based on specific criteria for a targeted group, whereas *snowball* sampling leverages referrals from existing recruits to reach niche populations (Patton, 2015). Both methods allowed us to enlist a diverse group of MHPs with varied backgrounds and insights. The Principal Investigator (PI) capitalized on personal and professional networks with psychologists and counseling services in Alberta to recruit participants. Alberta was selected as the study location due to its multifaith religious demographics and status as a “Bible Belt” region in Canada (Reimer, 2003, p. 123). This geographical region attracts a high number of immigrants seeking religious freedom and cultural affinity. Its unique pluralistic context manifests a fertile environment for evaluating the intersection of faith and mental health practices. Email outreach, telephone contacts, and professional networking were used to reach potential participants.

Additionally, data collection for this study involved semi-structured interviews conducted virtually, a necessary adaptation due to the COVID-19 pandemic. This research method was chosen to allow for flexibility and depth, combining open-ended questions with a structured interview protocol to ensure consistency (Jacob & Furgerson, 2012). The questionnaire was developed based on an extensive literature

review and expert consultations, ensuring that the queries addressed the research objectives. Specifically, MHP participants responded to 31 questions covering faith, culture, counseling, competency, and implications. All interviews were conducted via video conferencing on Zoom, allowing for non-verbal cues and facial expressions to be captured. Participants provided informed consent prior to the interviews and were assured of anonymity through the optional use of pseudonyms. The interviews, which lasted approximately 90 minutes, were audio-recorded. The recordings were transcribed verbatim by Transcript Hero, an external transcription service that signed a confidentiality agreement. The transcripts were then coded independently by the PI and Research Assistant (RA) using NVivo 12 software, with coding decisions finalized through consensus. The coding process benefited from the PI's specialized knowledge and the RA's complementary contribution. Themes were identified and refined through an iterative process, involving repeated readings of the transcripts, coding, and discussion among the research team. Finally, participants were thanked for their time, and each received a \$20 Tim Hortons eGift Card.

Data Analysis

As earlier mentioned, we utilized Braun and Clarke's (2006) thematic analysis to identify patterns within the qualitative data. We began by familiarizing ourselves with the recorded interviews and field notes to achieve a totalizing picture of participants' narratives. Initial codes were generated from the field notes and interview content, which formed the basis for theme development. We then searched for themes, examining codes and data to identify emerging patterns and connections. After identifying the themes, we reviewed and refined them, defining and naming overarching themes and subthemes that captured the essence of the participants' experiences. The Data Analysis Team consisted of the PI, a racialized individual, and a RA, a White individual. We reflected on our *positionalities*, mindful that our lived realities might shape our perceptions in the qualitative research process (Rowe, 2014; Savin-Baden & Major, 2013). Through regular *reflexive discussions* (Yip, 2024), which involved critically examining our own thoughts and assumptions, we alleviate potential biases. Individual reflections facilitated introspection and self-awareness (Dixon & Chiang, 2020), enabling us to locate ourselves in relation to the research participants.

To ensure validity and reliability, we conducted *member checking*, sharing findings with participants to verify our interpretation (Clarke & Braun, 2018; Creswell, 2014). This involved providing each participant with a descriptive summary of emergent themes and soliciting their feedback to confirm, disconfirm, or modify our interpretation of the data. Additionally, this process ensures that the research team's interpretation accurately reflects participants' voices and subjective realities, thereby enhancing the "accuracy, validity, and credibility" of the results (Creswell, 2014,

p. 233). Finally, we compiled our findings into a comprehensive document, using thematic analysis to present a clear description of participants' accounts (Clarke & Braun, 2018). This report, thus, uncovers the distinct faith standpoints of MHPs, revealing both shared realizations and contrasting observations that emerged throughout the study.

Results

This section enumerates the study's findings, organized into eight core themes: Conceptualization of Faith, Strategies for Incorporating Faith into Practice, Fostering Strong Client Relationships, Faith Informing Practice and Professional Growth, Faith as a Salient Dimension of Mental Health, Faith Competence in Multicultural Practice for Client-Centered Care, Pathways for Faith-Based Training and Learning, and Barriers to Integrating Faith. Each theme is further divided into 23 subthemes, supported by the literature and data analysis. For an exhaustive summary of the themes, subthemes, and corresponding participant numbers, see Table 2 below. Subsequently, a word cluster in Figure 1 affords readers a visual representation of the themes and subthemes, helping to synthesize their comprehension of the study's findings. Due to the article's length restrictions, core themes and subthemes are consolidated seamlessly to convey a systematic overview of the research findings.

Table 2.
Findings Organized by Theme and Subthemes

Theme 1: Conceptualization of Faith (10 participants)	Subtheme 1.1: Personal conceptualization of faith (10 participants)
	Subtheme 1.2: Personal use of faith (10 participants)
Theme 2: Strategies for Incorporating Faith into Practice (10 participants)	Subtheme 2.1: Prayer (6 participants)
	Subtheme 2.2: Expressive faith and worship (4 participants)
	Subtheme 2.3: Validating client's worldview of faith (10 participants)
	Subtheme 2.4: Scripture (5 participants)
	Subtheme 2.5: Modify strategies from one faith group to serve another (3 participants)
Theme 3: Fostering Strong Client Relationships (8 participants)	Subtheme 3.1: Cultural match between client and MHP (6 participants)
	Subtheme 3.2: Exploring faith during the intake process (8 participants)
	Subtheme 3.3: Creating safety with clients (7 participants)
	Subtheme 3.4: Healthy self-disclosure (5 participants)
	Subtheme 3.5: Exploring connections with clients (7 participants)
	Subtheme 3.6: Recognizing religious trauma (5 participants)
Theme 4: Faith Informing Practice and Professional Growth (10 participants)	Subtheme 4.1: Using faith as a guiding force during sessions (9 participants)
	Subtheme 4.2: Co-learning with clients (10 participants)
Theme 5: Faith as a Salient Dimension of Mental Health (9 participants)	Subtheme 5.1: Salient elements of faith (9 participants)
Theme 6: Faith Competence in Multicultural Practice for Client-Centered Care (9 participants)	Subtheme 6.1: Building competency in diverse faith worldviews (8 participants)
	Subtheme 6.2: Being curious, humble and avoiding assumptions (9 participants)

Findings Organized by Theme and Subthemes

Theme 7: Pathways for Faith-Based Training and Learning (8 participants)	Subtheme 7.1: Limitations around faith-based training and development (8 participants) Subtheme 7.2: Pathways for Training (7 participants)
Theme 8: Barriers to Integrating Faith (8 participants)	Subtheme 8.1: Navigating (cultural) nuances (8 participants) Subtheme 8.2: Faith-ethics conflicts (7 participants)

Word Cluster of Study Themes and Subthemes



Theme 1: Conceptualization of Faith

MHPs' *Conceptualization of Faith* emerged as a prominent theme, highlighting its complex and personal nature. This theme is grounded in social constructionist theory (Lock & Strong, 2012), which posits that reality is subjective and multi-layered. Faith was found to be a vital aspect of participants' lives, determining their sense of purpose, connection with the world, and moral framework. Two subthemes emerged: *Personal Conceptualization of Faith (1.1)*, which probes into the respective ways participants define and attribute connotation to faith. This subtheme showcases the personal inferences of faith, shaped by individual experiences, cultural backgrounds, and spiritual practices. *Personal Use of Faith (1.2)*, the other identified subtheme, describes how participants intentionally integrate faith into their daily lives, influencing their thoughts, feelings, and behaviors. Together, these subthemes provide a roadmap of faith as a fluid and profoundly interconnected construct that is both personally developed and actively implemented.

Notably, participants' personal experiences, cultural backgrounds, and spiritual practices played a significant role in shaping their faith perspectives, as apparent in the subthemes. This eminence on personal experience and spirituality was echoed by Sophie, who stated, "Having this meaning making ... that belief that things are going

to work out and everything happens for a reason and the higher power sometimes has a better plan for us is how I conceptualize faith.” For some participants, faith was deeply tied to their spirituality and connection with the world, existing outside of organized religious practices. As Amy explained further:

For some people their faith lies in their spirituality of how they connect with the world, so it doesn't have to be in a church. [Y]ou could have faith, for sure, and not ever even been in a church. That's why I said I think for me faith is spiritual, it's a pillar. I think I'm a very faithful person...I have belief, I just don't practice... I pray, I meditate, and I practice gratitude.

The above quote exemplifies the reflective ways in which faith is understood and lived out through interactions with the sacred and the world. This substantiation aligns with a social constructionist lens, emphasizing context and connection.

Further, faith plays a substantial part in the lives of MHPs, serving as a groundwork of strength, guidance, and solace. Susan professed, “Faith is that anchor . . . it gives me a sense of stability, and it helps me understand the world.” Similarly, Sophie pinpointed that faith delivers relief and opportunities for interrelationship with others during festivities and celebrations. This theme also crystallizes faith's clinical significance, necessitating MHPs' astute approach, characterized by empathetic curiosity and judicious openness. Such a stance dovetails with social constructionist theory (Dixon, 2015), which posits reality as contextually crafted. By embracing heterodox religious beliefs, MHPs can harness therapeutic care that's both culturally attuned and client-centric.

Theme 2: Strategies for Incorporating Faith into Practice

A number of MHPs shared strategies for incorporating faith into practice, prioritizing faith-sensitive care as a therapeutic asset to uplift immigrant clients. Congruent with social constructionist theory (Dixon, 2015), this theme epitomizes the co-construction of meaning with clients and the interplay of faith, culture, and experience. Five subthemes emerged, introducing concrete ways MHPs infused faith into practice. Firstly, MHPs spoke about *Prayer (2.1)*, which was used as a therapeutic tool. Additionally, they described that *Expressive Faith and Worship (2.2)* encompassed creative practices, such as music, art, and dance, to facilitate spiritual expression and connection. Furthermore, MHPs outlined *Validating Client's Worldview of Faith (2.3)*, a process that empowers clients to center their faith and faith practices into the therapeutic relationship. Another approach was using *Scripture (2.4)* to provide comfort and guidance. Finally, *Modifying Strategies (2.5)* afforded MHPs the flexibility to welcome dissimilar faith backgrounds, exhibiting cultural sensitivity and humility. This means that by interweaving faith-sensitive strategies in practice, MHPs can establish a trusting and vulnerable clinical environment with clients.

Within this supportive space, clients can process faith-related emotional discomfort, gaining insight, validation, and empowerment. Mary explained that she seeks consent before praying with or for clients, saying, “I ask clients if they want to start the session off with a prayer...it’s client-led, or I can lead, or just silent, asking for strength to get through the session.” This transparency encapsulate respect for clients’ faith and boundaries. Other participants spoke to navigating these parameters in ways that provided meaningful points of entry to dialogue. Incorporating religious music was another therapeutic intervention used by MHPs in clinical practice to connect with clients on a deeper level. Amy recalled a session where she played religious music in the session that resonated with her client’s beliefs, saying, “I’ve had clients play religious music in session...I knew they were very connected to religion, and I broached it...they loved the song and the verse.” This faith strategy delineates the power of music to evoke emotions and create a sense of spiritual transcendence in therapy.

Equally, MHPs experimented with *expressive worship* in clinical practice using mediums like dance, art, scripture, and music to bridge spiritual experiences with clients. Gracie emphasized the importance of holding space for clients to express themselves freely, noting, “There are many examples in sacred scriptures where you pour out your heart to an invisible presence that cares deeply. Through expressive scripture readings with my clients, I facilitate a space for them to experience that same presence and connection.” This therapeutic stance co-creates a brave and supportive environment (Arao & Clemens, 2013), permitting clients to express both their faith and the inner sentiments it awakens in a nonjudgmental manner.

MHPs also used *metaphors* and *stories* to unearth clients’ faith and beliefs. Jah explained that these non-conventional outlets can help clients access their subconscious mind and emotions. He firmly stated, “Metaphors that come in dreams, stories, and our everyday life, ... [they can serve to] allow [clients] to open up and talk about their faith.” This creative technique recognizes the power of faith narrative and symbolism in shaping our understanding of ourselves and the world. In recognition of this power, MHPs spoke about adapting their counseling strategies to accommodate clients from different faith groups, ensuring cultural sensitivity and mindful acceptance of diverse worldviews. Susan shared a grounding technique she learned, asserting, “Supporting clients ends with connecting to something greater than yourself... A valuable lesson taught to me by an Indigenous dancer.” This form of spiritual grounding speaks to the critical nature of cultural humility in counseling to elevate the client-clinician relationship and provide more effective support.

Overall, this core theme demarcates cultural safety, respect, and creativity when portraying faith strategies into clinical settings. *Cultural safety* is defined as an ongoing process where health professionals continually examine their knowledge, attitudes, and behaviors (Government of Canada, 2023). In doing so, MHPs can facilitate a

paradigmatic shift towards inclusivity, wherein individuals from heterogeneous faith backgrounds, including racialized immigrants, feel secure and agential in receiving therapeutic intervention. To prompt engagement, MHPs should establish a brave space where clients can activate their faith practices through prayer, religious music, scripture, and expressive worship. This environment allows for open discussions about spiritual beliefs, free from judgment, and supports culturally sensitive care (Arao & Clemens, 2013; Cook-Sather, 2016). From a social constructionist perspective, the dialectic process in therapy shapes how the clinician collaboratively co-creates spiritual meaning-making imbued with the client's religious milieu.

Theme 3: Fostering Strong Client Relationships

Many MHPs affirmed the crucial function of trust, empathy, and cultural sensitivity in *Fostering Strong Client Relationships*. Six key subthemes arose from this overarching theme. MHPs commented that *Creating a Cultural Match Between Client and MHP* (3.1) resonated with clients. Furthermore, MHPs converged on several key strategies, including *Creating Safety with Clients* (3.3), *Exploring Faith During the Intake Process* (3.2), *Engaging in Healthy Self-Disclosure* (3.4), and *Exploring Connections with Clients* (3.5). Additionally, MHPs identified intricacies in amalgamating faith into practice, with a well-needed competency being *Recognizing Religious Trauma* (3.6). These discoveries empowered MHPs to form meaningful bonds with their clients. Aligning with the data, Mary reflected, “I don’t have issues with being culturally sensitive because I model it myself. Clients tell me, ‘You know how Africans value faith and appearances’ – they see me as one of them.” This sense of cultural safety paved the way for MHPs to inquire into clients’ faith in a non-intrusive manner. Consequently, forging strong client relationships was central to MHPs’ practice, and upholding clients’ faith frequently informed this therapeutic exchange.

For most MHPs, affirming clients’ spiritual worldviews at the intake stage engendered realistic change, collaboration, and optimal healing. Amy explained, “I asked about faith on my intake form, and we discussed it in the first session. It’s an easy way to understand clients’ beliefs and values and begin to foster a strong relationship from the outset.” This intentional exploration of faith helped MHPs lay the scaffold for establishing a trusting working alliance with immigrant clients. These individuals often require assurance of safety, empathy, and acceptance from their practitioners.

Therefore, co-creating a safe space was germane in practice, with MHPs being purposeful in developing a wholesome rapport with clients. Gracie expounded, “My goal is to establish a rapport and create safety for therapeutic work through *healthy self-disclosure* that benefit client growth and generate change” (emphasis added). BenB approved, indicating, “I listen skillfully to clients’ language around faith and disclose my faith tradition in a healthy and safe way, if beneficial. It helps build trust

and understanding.” Intriguingly, a secure, supportive environment combined with healthy self-disclosure enables MHPs to co-construct faith-sensitive interventions that catalyze lasting change for clients

To develop sustainable client alliances, some MHPs actively sought to comprehend and appreciate the diverse spiritual backgrounds and beliefs of their clients. By accentuating common values between both parties, and principles that transcended religious affiliations, a more compassionate and inclusive therapeutic process unfolded. Supporting this stance, Leena remarked, “We [MHP and client] connect on shared values, understanding the client’s needs based on their faith backgrounds and not differences.” Subtle awareness of faith experiences informed MHPs’ client-centered approach, galvanizing trust and mutual empathy through collaborative dialogue

Correspondingly, possessing competency regarding the impact of religious trauma is vital for establishing trust and strong client relationships. Moreover, increased awareness of religion’s harmful effects can inspire MHPs to co-facilitate a brave and welcoming space for clients to share their stories (Arao & Clemens, 2013). On this topic, Jah spoke his truth with conviction, “I realized I’d been robbed of my original faith because of *colonization*. So, it’s important to understand how colonization might have harmed immigrant clients’ cultural backgrounds and faith experiences” (emphasis added). Here, *colonization* is depicted by the exploitative control of one’s country or area by another, leading to the suppression of Indigenous cultures, beliefs, and practices (Hele, 2023). This historical context portrays how socio-cultural forces shape individuals’ experiences, worldviews, and relational interactions (Burr, 2015). To address the ongoing impacts of colonization, MHPs must engage in *decolonization* efforts (Eni et al., 2021), which involves dismantling colonial systems, structures, and relationships that perpetuate harm and oppression. By engaging in constructionist dialogues, MHPs can empower clients to challenge dominant discourse and reclaim their personal narratives, which are often indelibly marked by traumatic experiences (Lock & Strong, 2012). In this way, MHPs can validate the cultural, religious, and personal identities of marginalized clients.

Theme 4: Faith Informing Practice and Professional Growth

Multiple MHPs shared how their personal faith influences their approach to counseling and informs their professional development. They noted that faith undergirds their clinical practice, *Using Faith as Guiding Force During Sessions* (4.1), and supports growth through *Co-Learning with Clients* (4.2). Both subthemes reveal the profound impact of faith on MHPs’ clinical judgment and therapeutic strategies. One participant, Susan, declared, “I pray before seeing clients and have an internal conversation to determine the direction of therapy. I find my faith in those impressions of me.” This faith-guided custom of prayer served as a grounding

technique, helping other MHPs in the study traverse arduous periods and maintain a positive mindset. Amy agreed, conveying:

I think that's the piece where I said if I have a tough day sometimes, that's where I would be like, you know what, I just need to pray about it. So, it's [using faith] kind of like a grounding technique, to be honest. It helps to center me professionally, and so I think it helps me cope in my practice to better support clients.

The spotlight on faith as a coping mechanism manifests the invaluable sustenance spiritual resources impart throughout the mental health journey. By entwining faith with their personal and professional identities, practitioners can more adeptly negotiate clinical complexities and fortify their well-being, emotional regulation, and sense of purpose. As part of a collegial conversation, Fritz echoed on the value of co-learning with clients who integrate faith into their personal and therapeutic growth. He lamented the scarcity of such opportunities in his professional development: “Working with clients of faith has enriched my practice, allowing me to appreciate diverse perspectives and respect the intersections of faith and mental health. I’ve learned from my clients, and I hope they’ve learned from me.” This collaborative approach constructs a reciprocal learning environment where MHPs can infuse faith-sensitive practices and work alongside clients to address spirituality in an impactful way. Further, BenB’s experience in clinical practice illustrates this theme: “My faith teaches me to love and respect all individuals, regardless of their background or identity. As a practitioner, I strive to create a safe and welcoming space for all clients, where they can feel valued and supported.” BenB’s faith fundamentally underpins his clinical paradigm, inspiring a compassionate and culturally attuned approach to client relationships. This dynamic exemplifies a discursive practice that evinces the synergistic relationship between faith and professional growth in mental health practitioners. By intercalating faith into their work, clinicians can help clients withstand unforeseen unpredictability within therapeutic landscapes. Such discovery reinforces the essence of faith in defining the professional trajectory of MHPs. Faith serves as a catalyst for therapeutic growth, instantiating symbiotic learning relationships and co-created meanings with clients. This adaptive, context-responsive approach to faith-inclusive care unveils its transformative benefits on mental health practices.

Theme 5: Faith as a Salient Dimension of Mental Health

The study’s respondents showcased the profound impact of clients’ faith on their well-being and recovery. From a social constructionist perspective, faith surfaces as a salient component of mental health, shaped by clients’ cultural backgrounds, worldviews, language, and social contexts (Gergen, 2015). In this vein, MHPs viewed *Salient Elements of Faith (5.1)* as integral to tackling clients’ mental health problems, supporting treatment and healing, and serving as a pillar of strength and

anchor of hope. Faith, as communicated in their chronicles, is crucial in forming the worldviews of many immigrant clients, linking them to vital connections and communal bonds. Similarly, faith serves as a spiritual framework that sustains MHPs, helping them find resilience and meaning in demanding circumstances. By sustaining faith in their lives, MHPs can help themselves and their clients overcome life's adversities. In support of this position, Mary observed, "Faith is a simple part of who [immigrants] are, how they make sense of the world, and how they navigate through it." Evidently, the power of faith in the lives of immigrants cannot be overstated. For many immigrants, faith serves as a critical lifeline and emotional bedrock, helping them weather the uncertainties of adapting to a new country while safeguarding their mental well-being.

Affirming the above claim, Gracie stressed the imperative of faith-based supports, such as church communities, in offering culturally situated and wraparound services for clients. She articulated, "A lot of [the] success of immigrants [integrating] into a new country is really the supports they have around them... [and] finding them wraparound supports in a religious community." MHPs also distinguished faith as a source of trust in a higher power's guidance and protection. In fact, as Fritz explained, "Our spirit matters more than our bodies and minds. Even in difficult situations, we're being taken care of in a spiritual eternal plan, which is important to our mental health."

Ideally, MHPs in this study rated faith a central dimension of mental health, indispensable for clients' well-being, recovery, and progress. This perspective on faith is grounded in a socially constructed framework (Gergen, 2011), wherein MHPs' collaborative guidance motivates clients to reclaim their agency. By valuing faith's spiritual profundity, MHPs can provide more effective, culturally sensitive support bespoke to the distinctive needs of immigrant client populations.

Theme 6: Faith Competence in Multicultural Practice for Client-Centered Care

Some MHPs posited that *faith competence* is paramount for delivering client-centered care. For our study, this term symbolizes appreciating a rich tapestry of clients' cultural backgrounds, perspectives, and faith experiences, evoking a more inclusive therapeutic relationship (Dixon, 2015; Dixon et al., 2023a). Within this purview, MHPs identified faith as a core element of immigrant clients' lives and deemed *Building Competency in Diverse Faith Worldviews (6.1)* germane for high-quality client service. As Jah clarified, "[I'm] always learning and seeking support to better understand my own faith and my clients' faith, and how to respect their faith tradition from a client-centered perspective." This dual commitment to understanding and reverencing faith is pivotal for building trust and increasing competence in multicultural practice.

To enhance competence in multicultural practice (American Psychological Association [APA], 2018), MHPs adapted Eurocentric techniques in culturally sensitive ways to accommodate their clients' unique faith needs. Amy elaborated extensively on this point:

So, the strategies are not a cookie cutter – for example, the word distortion in Cognitive Behavior Therapy, I'm mindful how I use that with clients of faith, to be honest. Like, you know, it can be quite a judgmental view of the client. So, I'll use things like, 'I'm not saying you have a distortion, 'I'm saying that is kind of like the way you see the world, is through a glass that's foggy.' You see what I mean? But I'm still using the technique, but I'm trying to modify the word to fit their worldview.

This modified evidence-based, client-centered approach used by MHPs allows for consideration of cultural norms, values, and beliefs that underpin mental health experiences and perceptions (Gergen, 1991). *Evidence-based practices (EBPs)* hinge on empirical research, data, and scientific veracity to guarantee efficacy, safety, and parsimony (Dixon, 2022). Building on this empirical view, MHPs are called upon to reconfigure key interventions from traditional Western modalities to suit clients' diverse needs. This form of intervention calibration can instill cultural humility and contextual insight for both parties.

Theme 7: Pathways for Faith-Based Training and Learning

Multiple MHPs corroborated noteworthy gaps in faith-based training and development, confirming the need for enhanced training and inclusion of faith-based competence in counseling education. Respondents recounted *Limitations Around Faith-Based Training and Development (7.1)* in their educational careers. Particularly, a substantial proportion of MHPs also described *Pathways for Training (7.2)* that they used as alternatives to formal training. To exemplify this point, secular university training programs often exhibit a dearth of faith-based assessment and intervention strategies. Conversely, some participants who studied at religion-focused institutions offered a broader curriculum infused with faith-based learning. Amy, a graduate of a secular program, shared her experience: "There was no faith-based training, none... I think it's because there's not a lot of research around how faith helps, so in grad school, there's none." In contrast, Gracie, who attended a seminary, had a different experience, declaring, "I did my training in a seminary... where I took university courses and faith-based courses as part of my master's degree." Unmistakably, this unique blend of academic and faith-based education bolstered Gracie's competency in clinical practice. She learned to infuse spiritual principles with EBPs, elevating her ability to counsel clients from multi-faith beliefs.

Complementing MHPs' didactic learning, they identified numerous pathways for training in faith-based competence. These pathways included participating in local

religious ceremonies, celebrations, and cultural events to deepen their appreciation and knowledge of different spiritual mores. MHPs also saw value in ongoing learning and personal growth to expand their cultural humility. To achieve this, respondents leveraged various resources, including academic literature, videos, podcasts, and social media platforms, to co-construct generative ideas through constructionist dialogues with clients. Fritz voiced, “I’ve deliberately sought out experiences and knowledge to appreciate different perspectives. I like visiting places of worship and continuing to seek out and read faith-based materials such as books and listening to podcasts to enhance my learning in clinical practice.”

In conjunction, our study identified a rudimentary pathway for faith-based training in clinical practice, heightening the benefits of integrating faith worldviews into mental health care. Decidedly, numerous MHPs advocated for disrupting dominant Westernized ideals, arguing that embracing socially constructed epistemologies that combined faith, culture, and mental health can propel meaningful change. This pathway was mirrored by Jah’s perspective:

I felt like my lived experience of faith was really important and a key part of my learning with clients... I don’t look at my professional training as being more important, as I think it is rooted in Western ideologies. It is vital in my work with immigrant clients of faith to consider non-Westernized ways of learning to better serve them and maintain lasting change.

Strikingly, this theme largely expresses the need to strengthen faith-based training and education for MHPs. It exposes the complicated interchange between mental health practices, cultural norms, and power dynamics. By interweaving self-directed learning, cultural immersion, and critical examination of Westernized religious canons, MHPs can problematize dominant discourses that may marginalize non-Western faith (Gergen, 2015). This wide-ranging approach presents an opportunity for MHPs to co-construct culturally sensitive care with their clients.

Theme 8: Barriers to Integrating Faith

MHPs disclosed a myriad of obstacles when drawing on faith into their clinical work, namely *Navigating (Cultural) Nuances* (8.1), and managing *Faith-Ethics Conflicts* (8.2). These results foreground overwhelming struggles around faith integration in practice expressed by MHPs, including stigma, fear, and ethical conflicts. Some individuals also felt ashamed and uncomfortable openly professing their religious beliefs due to fear of public perception. As Amy enunciated, “Colleagues who are religious feel ashamed and uncomfortable about expressing their beliefs, and they hide it.” This fear of stigma and negative perception can deter MHPs from explicitly conversing about faith with clients, creating a shortcoming for integration. What’s more, MHPs cited a limited knowledge base and lack of confidence in dialoguing about faith in clinical practice. This dilemma was particularly pronounced when confronted with unclear professional regulations

and ethical standards surrounding boundaries, dual relationships, and privacy concerns in small rural communities. According to Susan, an interviewee:

I'm willing to discuss faith in counseling, but I'm ... cautious due to ethical concerns. Our current ethics and standards seem outdated and contradictory, especially when working with clients from diverse faith backgrounds in small communities where boundaries can be blurred.

Adding to this revelation, MHPs vocalized that language could be a roadblock to including faith in clinical practice, consequently restricting equitable access to mental health services. As Susan reported, "We need to be accessible and offer services in clients' native languages to be truly multicultural...language issue can be a barrier to care." This attention to language inclusivity can mitigate systemic barriers that prevent immigrant clients from faith-based communities from seeking therapy. As well, MHPs may encounter difficulties in establishing rapport with immigrant clients of faith due to power imbalances and biases. In practice, this discord can raise important ethical considerations when co-constructing self-reflective narratives and promoting culturally sensitive care. Gracie weighed in on the matter, saying: "I'm aware of power dynamics and biases in the room and strive to be introspective, especially when engaging with immigrant clients of faith." This self-awareness is critical for MHPs when religious convictions clash with Westernized therapeutic approaches.

Continuing this line of reasoning, BenB, a respondent of a fundamentalist Christian tradition, proclaimed the tension between his personal faith convictions and ethical standards. As a MHP, he reaffirmed his ethical responsibility to treat all clients with respect and without discrimination, independent of their faith background or cultural identity. This includes members of the Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, and other sexual orientation and gender identity communities (LGBTQ+), who may be subjected to rejection or exclusion within their Christian faith tradition. BenB shared: "As a practitioner, I've chosen a profession that supports every human being. My faith background may have presented a barrier, but I prioritize my ethical responsibility to respect and support all clients, regardless of their background or identity." BenB's commentary reveals the critical nature of handling ethical dilemmas surrounding faith with humility, sensitivity, and compassionate care for diverse populations.

Therefore, MHPs must intentionally address the existing relational inequities and systemic disparities in clinical practice, which are often rooted in social constructs such as hierarchies, biases, and cultural norms (Burr, 2015; Gergen, 1991). By critically examining and dismantling these barriers, MHPs can provide a higher quality of care. This fosters a brave and inclusive environment for courageous dialogues that privilege the voices of clients of faith (Arao & Clemens, 2013), singularly those from immigrant populations.

Discussion

This discussion dissects MHPs' faith competencies in clinical practice and the need to promote inclusive mental health services that honor immigrant clients' diverse faith beliefs and experiences. Drawing from the core themes and subthemes, we address two critical areas: building faith competence in mental health care and overcoming barriers to faith-centered care. Particularly, our data analyzes are grounded in social constructionism (Burr, 2015), corroborating that faith and spirituality are universally subjective concepts that vary across cultural, relational, spatial, and temporal contexts. We, then, examine the implications of faith competence on theory, practice, and policymaking. Next, the limitations, strengths, and future directions of the study are outlined. The paper concludes with long-term recommendations for MHPs, embedding faith competence into clinical care for immigrant clients of faith.

Building Faith Competence in Mental Health Care

Research substantiates the significance of faith competence in mental health care, preeminently when working with diverse populations (Fukuyama & Sevig, 1999; Moodley & Barnes, 2015; Sue et al., 2009). Our study reinforces the exigency of attending to clients' spiritual and religious worldviews, especially for marginalized groups. For immigrant clients, faith often deeply intersects with their identity (Dixon, 2015; Dixon et al., 2023a). Recognizing faith as a socially constructed concept allows MHPs to better navigate the multilayered nature of clients' spiritual and religious identities (Dixon, 2015, 2019). This thoughtful perspective promotes empathetic engagement, cultural humility, and curiosity in therapeutic relationships.

Building on prior scholarship that explored the multifaceted nature of religious and spiritual experiences (Dixon & Wilcox, 2016), this study examines the subtleties of accommodating faith in counseling spheres. Notably, faith-based practices can have a paradoxical effect, potentially worsening mental health outcomes through maladaptive coping mechanisms, misconceptions, and detrimental beliefs, while also providing therapeutic advantages (Antoniou & Kalogeropoulos, 2024; Weber & Pargament, 2014). For example, MHP participants in this study asserted the lingering impact of religious trauma stemming from colonialism and the suppression of non-Western spiritual traditions. This trauma was similarly experienced by MHPs working with immigrant LGBTQ+ clients, who face compounded setbacks in reconciling their religious beliefs with professional ethical obligations. This discovery brings attention to the imperative for culturally sensitive faith competence in clinical settings, most pertinently when working with vulnerable immigrant communities.

Moreover, faith competence empowers MHPs to deliver personalized care (Sanerma et al., 2020), responding to clients' subjective spiritual and religious beliefs with presence,

attentive listening, and nonjudgment. Leveraging this understanding, our research suggests that faith-based training in non-Westernized approaches to enhance faith competence among MHPs is warranted. Such specialized training can equip MHPs to strategically support immigrant clients of faith with their individualized post-migration circumstances (e.g., SDOH factors). Consistent with mental health research indicating that faith-based interventions yield positive effects (Wade et al., 2018), this investigation's findings inform the development of culturally sensitive interventions. To be specific, MHPs can explore expressive forms of worship, such as prayer, religious music, and sacred scripture, as therapeutic tools to facilitate client healing and transformation.

Furthermore, our conclusions signify that some MHPs are “cautious” when broaching spiritual issues due to ethical concerns. By extension, prioritizing faith competence can help MHPs foster a more inclusive therapeutic environment, leading to efficient treatment and improved client satisfaction (Sue et al., 2009). This is central for immigrant clients, who are disproportionately affected by systemic barriers, including racism and other forms of oppression (Dixon, 2015; Dixon et al., 2023a). Therefore, this DQR's results suggest that faith encompasses religious and spiritual practices, beliefs, and values, offering solace and significance for both MHPs and immigrant clients. To effectively integrate faith into clinical practice, MHPs must grasp the conceptual distinctions between faith, spirituality, and religion (Weber & Pargament, 2014).

Based on the above argument, MHPs should transition beyond covert competencies to overt competencies, with an enhanced skillset in culturally sensitive faith interventions (Dixon & Bell, 2025; Dixon et al., 2025; Sue et al., 2009). *Covert competencies* refer to the underlying attitudes, values, and personal qualities that a counselor possesses (e.g., empathy, genuineness, etc.) (Sue et al., 2009). Conversely, *overt competencies* describe visible, observable skills and knowledge that a counselor demonstrates (e.g., cultural and faith awareness, culturally appropriate interventions, etc.) (Sue et al., 2009). By appreciating the complex interplay of faith and mental health, MHPs can buttress a culturally sensitive space, conducive to honest and empowering dialogue. Grounded in a social constructionist framework (Lock & Strong, 2012), this dialectic environment cultivates clients' growth into self-authored, value-driven individuals. As a result, they become equipped to make informed decisions that reflect their personal values and principles. Subsequently, MHPs can enhance holistic wellness by honoring clients' autonomy and agency, garnering culturally situated support that aligns with the unique needs and desires of immigrant clients of faith.

Overcoming Barriers to Faith-Centered Care

Despite the importance of faith competence, MHPs face immeasurable barriers when attempting to infuse faith into their clinical work. Existing literature identifies several

factors that hinder the integration of faith in mental health care, including historical rejection, resistance to change, limited research and training, discomfort discussing faith, and ethical concerns (Dixon & Bell, 2025; Gubi, 2009; Gubi & Jacobs, 2009; Plumb, 2011; Shafranske, 2000; Vieten & Scammell, 2015). Our research advances this debate by uncovering the intricacies of tensions MHPs encounter when reconciling faith within therapeutic practices. Specifically, stigma and fear of public perception emerged as substantial barriers, with some participants feeling ashamed and uncomfortable about openly expressing their religious beliefs with clients. To curtail these obstacles, MHPs must discern how the socially contextualized nature of faith and spirituality influences power relations and cultural subtleties in clients' lives.

From this vantage point, MHPs should prioritize introspection (Dixon & Chiang, 2020), recognizing that faith-sensitive practice and judicious self-disclosure foster strong therapeutic relationships with immigrant clients. By being transparent about their own faith-related uneasiness, MHPs can create a brave space (Arao & Clemens, 2013) that fosters open exploration and culturally sensitive therapy. Effective adaptation of these strategies in clinical settings can promote treatment success and build rapport.

Another major impediment to faith-centered care is the inadequate preparation of MHPs in tending to the spiritual aspects of their clients' lives. Our research analyzes underpin the demand for inclusive education on faith, spirituality, and religion within mental health training programs. The paucity of focus devoted to these topics impedes MHPs' capacity to deliver faith-centered care, overlooking the pivotal role of relationships in constructing personal identity (Gergen, 1991). To tackle this issue, MHPs must grapple with the sophisticated interchange between clients' spiritual convictions, practices, and relationships. Thus, our data displayed that specialized training in faith-centered care, like programs offered by faith-based institutions, benefits MHPs' competence and confidence in meeting clients' spiritual concerns. Conversely, many secular institutions neglect the coping element of faith in curriculum design, leaving clinicians ill-equipped to maneuver clients' complicated religious and spiritual landscapes. This disparity draws attention to the relevancy of relational and spiritual dimensions in holistic client care (Hechinger et al., 2019). By venerating the symbiotic relationship between spirituality and mental health, clinicians can develop faith literacy to validate their clients' experiences. Social constructionism lends credence to this perspective (Burr, 2015), underlining the impact of social interactions and relationships on clients' lived realities. Within the context of faith-centered care, surmounting the above barriers requires MHPs to engage in continuous education and self-examination (Dixon & Chiang, 2020). This process prompts clinicians to introspectively evaluate their own predispositions and assumptions to deepen their knowledge base about clients' diverse spiritual narratives. In light of this, MHPs can co-construct faith-centered care that resonates with each client's needs.

Subsequently, our findings corroborate Canadian research (Plumb, 2011), which indicates that deficient training in spirituality and religion can impede counselors' effectiveness in undertaking clients' spiritual concerns. A study of registered clinical counselors in British Columbia, Canada (Plumb, 2011) revealed a disconnect between the perceived importance of spirituality in practice and its actual integration into client work. This incongruity stemmed from insufficient faith-based training in graduate education, leaving practitioners feeling incapable and uncertain about their ability to apply their spiritual skills in therapy. Our investigation, therefore, magnifies the urgent need for graduate programs to prioritize faith-based education and training. By making this shift, graduate programs can better prepare MHPs to respond to clients' spiritual issues with humility and curiosity.

Additionally, excluding discussion around religion and spirituality from the intake process is another potential barrier to faith-centered care. Our DQR found that adding faith-based questions on the intake form helped MHPs to establish a trustful therapeutic relationship with clients in a culturally sensitive manner. This insight coincides with previous research, which proposes that bridging faith screening and assessment tools into the intake process can enhance therapists' ability to respond to clients' faith-related presentations (Cotton et al., 2006). To clarify, the HOPE Spiritual Assessment Tool is a practical way for MHPs to explore clients' spiritual beliefs and practices in clinical settings (Anandarajah & Hight, 2001). It uses non-judgmental, open-ended questions to reveal clients' inner lives, enabling critical care that respects cultural diversity and fosters holistic healing. The HOPE tool measures four key facets of a person's spiritual well-being: *Hope* (sources of comfort and strength), *Organized religion* (affiliations and preferred practices), *Personal spirituality* (beliefs and practices lending meaning), and *Effects* (impact on medical decisions and end-of-life choices) (Anandarajah & Hight, 2001). This is an invaluable instrument that offers a structured yet user-friendly approach for MHPs to understand clients' beliefs, values, and support systems. Moreso, self-assessments of values, beliefs, biases, and conflicts related to faith can help practitioners identify their limitations and increase their clinical acumen (Vieten et al., 2023).

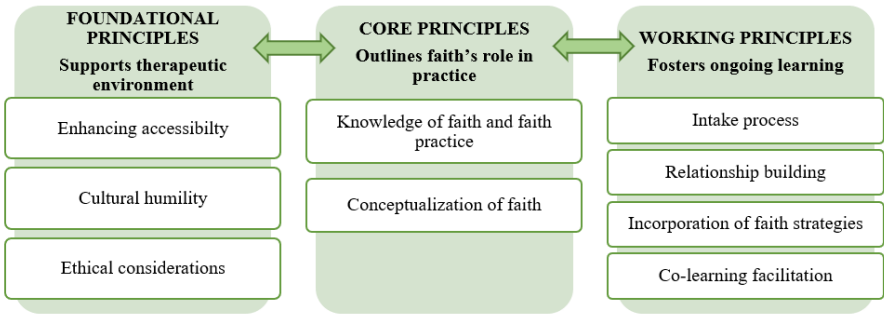
Finally, our qualitative inquiry brought to the forefront a salient concern: some participants found existing ethical standards ambiguous and outdated, particularly around boundary issues in rural communities. This gap underlines the need for more modernized ethical frameworks to scaffold clinicians' ethical decision-making process. In terms of ethical practice, MHPs can benefit from ongoing self-reflection (Dixon & Chiang, 2020) and proactive planning. Likewise, open dialogue and explicit guidelines can help resolve complex ethical situations (CPA, 2017; Gubi, 2009). Considering these discoveries, this investigation affirms the advantage of collaborative consultation with diverse stakeholders, including colleagues,

community faith leaders, and experts, to inform faith-sensitive practice (Dixon et al., 2023a). Building relationships and engaging in social interactions can enhance cultural competence and provide more inclusive care (Hechinger et al., 2019). Arguably, a dynamic feedback-driven approach, bolstered by an eclectic support network of diverse stakeholders, may enhance treatment efficacy for MHPs working with immigrant faith communities. By drawing on multisector feedback, MHPs can co-construct personalized and client-centered care that meets unique community needs across clinical domains.

Implications for Theory

Our study’s findings have significant implications for theory, illustrating the value of intentionally accommodating faith into clinical practice with various immigrant populations. In response, we devised the FFMF (see Figure 2 below), a data-driven framework that emanates from the broader project underpinning this article. By offering a systematic approach to faith-centered care, the FFMF seeks to augment clinical practice and provide more effective support for the spiritual needs of immigrant clients. This model also holds value for individuals in general for whom faith represents a salient dimension of their identities. More analytically, it constitutes a conceptual framework for a collaborative and innovative approach geared towards MHPs working with faith-oriented clients. The FFMF’s nomenclature reflects its core principles, which merge a flexible and dynamic approach (*free-flowing*) with a deep understanding of clients’ faith-based beliefs and practices (*model of faith*). This integration enables a therapeutic context that is both adaptable and spiritually sensitive, thus promoting an enriched client care experience.

Figure 2:
The Free-Flowing Model of Faith (FFMF)



The FFMF features a unique, non-hierarchical and non-linear design that accentuates the interplay between key domains. This innovative design supports the ongoing pursuit of growth in cultural competence, faith integration, and introspective

practice. Consequently, the FFMF empowers MHPs to engage with faith in a curious and respectful mindset, building trust, enhancing cultural sensitivity, and amplifying therapeutic efficacy. Introduced in this article, the FFMF fills a longstanding void in counseling literature by offering a holistic lens that strategically positions MHPs to optimize client services. By embracing the FFMF, MHPs gain the knowledge base to co-create personalized care plans with clients, promote overall well-being, and champion social justice.

The FFMF has impactful practical implications for clinical practice, particularly in refining the effectiveness of evidence-based frameworks for immigrant clients. In various clinical settings, including community mental health centers, hospitals, and private practices, the FFMF can be applied to address the unique needs of this population. To implement the model, MHPs should use cultural humility, empowerment, and social justice as guiding principles. Key steps include assessing clients' faith beliefs and practices, infusing faith into treatment plans, and engaging in ongoing self-reflection (Dixon & Chiang, 2020). By proactively overcoming deficiencies, such as limited training, cultural and linguistic barriers, and institutional resistance to change, MHPs can optimize the FFMF's efficacy. This, in turn, will better position them to serve immigrant clients from a culturally sensitive stance.

Albeit, the FFMF model boasts far-reaching theoretical implications, stemming from its groundbreaking synthesis of cultural, spiritual, and social contexts. This novel framework is uniquely informed by both MHPs' and clients' perspectives, yielding a richly contextualized understanding of faith experiences in clinical practice. By centering cultural humility (Tervalon & Murray-García, 1998), empowerment, and social justice, the FFMF framework pioneers a new approach to existing paradigms, shedding light on the complex intersections of faith and mental health. As such, this article provides an initial conceptual overview of the FFMF. Due to space constraints, an in-depth analysis will be explored in a subsequent publication. This follow-up paper will delve into the model's practical applications, implications, and actionable strategies for clinical implementation.

Implications for Clinical Practice

This research offers valuable insights for MHPs seeking to enhance their clinical work with immigrant client groups. It denotes that integrating faith into therapy can foster mental well-being and promote holistic care. Notably, expressive faith-based interventions, such as prayer, worship songs, and scripture readings emerged from this study as possible tools for increasing empathy and interpersonal connections for clients. Research purports that these interventions can culminate in productive mental health outcomes, including reduced symptoms of anxiety and depression (Dixon et al., 2023a; Koenig, 2012). This information reaffirms that faith functions

as a coping mechanism in overall well-being development for immigrant clients. The FFMF discussed above also theorizes a conceptual approach to comprehending the multifaceted relationships between faith, spirituality, and mental health. By operationalizing this framework in practice, MHPs can foster a profound appreciation of their clients' faith perspectives and provide culturally sensitive support that honors their spiritual beliefs and worldviews (Borneman et al., 2010; Puchalski, 2006). The model can be predominantly useful in clinical care, proffering a paradigmatic lens to discerning the role of faith in immigrant clients' coping and well-being.

Supplementing the FFMF, faith-based assessment tools can bolster the therapeutic relationship. Utilizing tools such as the *Spiritual Well-Being Scale* (SWBS; Bufford et al., 1991; Paloutzian & Ellison, 1982) and the *Faith, Importance, Community, Address (FICA) Spiritual History Tool* (Borneman et al., 2010; Puchalski, 2006) can equip MHPs with the necessary competencies needed to co-facilitate change with diverse clients. The SWBS measures spiritual well-being, including relationship with a higher power, sense of meaning and purpose, and feelings of inner peace and harmony (Bufford et al., 1991; Paloutzian & Ellison, 1982). The FICA Spiritual History Tool provides a step-by-step guide to gather information about a client's spiritual history and preferences (Puchalski, 2006). In counseling practice, the execution of this measurement is essential for providing authentic care to clients of faith (Puchalski & Romer, 2000). The FICA tool has been found to be clinically effective and can be infused into treatment to address the whole person, including body, mind, and spirit (Borneman et al., 2010). By attuning to spirituality early in the therapeutic process, MHPs can demonstrate to clients that they are prepared to support them without judgment on their healing journeys (Brémault-Phillips et al., 2015; Lucchetti et al., 2013).

Furthermore, *critical reflexivity* is essential in faith-integrated clinical practice, acknowledging and confronting biases, power dynamics, and historical/systemic factors that surface in counseling (Dixon & Chiang, 2020). From this perspective, ongoing learning, feedback, and consultation with spiritual leaders and community members can potentiate faith competence and catalyze meaningful change (Dixon, 2015; Fukuyama & Sevig, 1999). By interweaving practical strategies into counseling, MHPs can acquire a broader conceptualization of faith in immigrant clients' lives. This increased competency will also assist them to build their professional resilience within and beyond therapy. As well, ongoing learning and collaboration allow MHPs to stay current with best EBPs in faith-centered care, ensuring optimal client support.

Implications for Policymaking

Given our study's data, educational institutions should revise their policy frameworks to commit to culturally responsive practices, inserting faith awareness

as a vital element of *equity, diversity, and inclusion* (EDI) initiatives (APA, 2017). EDI entails ensuring fair treatment (equity), valuing unique experiences (diversity), and creating a welcoming environment (inclusion) (APA, 2017). Within this EDI milieu, the premise of *culturally responsive practices* is to instantiate policies in an inclusive space that builds capacity for client growth and emotional stability (Dixon & Okoli, 2023). This outlook unveils the intersectionality of identities that guides the development of counseling policies that respect the role of faith in shaping MHPs' socio-cultural experiences (Kassan & Moodley, 2021). By ascertaining the value of faith in cultural competence, MHPs can co-construct targeted faith-centered interventions that shift from individualist to communal cultural traditions (Lock & Strong, 2012). Such interventions should be policy-driven, focused, and grounded in evidence-based principles to enhance clinical training.

Elaborating on faith awareness in cultural competence, educators should embed faith-informed views into clinical training. This approach solidifies novice practitioners' capacity for culturally humble care among immigrant clients (Tervalon & Murray-García, 1998). Such expertise will, in turn, inform policymakers involved in curriculum design, enabling them to craft evidence-based policies that support faith-sensitive mental health practices. We propose an urgent, coordinated effort to develop grassroots faith-awareness training programs that employ a bottom-up approach, empowering local communities to address their unique needs. By harnessing collective expertise, we can co-create a mental health ecosystem that prioritizes equity, dismantles systemic barriers, and cultivates culturally responsive care. Through synergistic efforts around faith-informed policy plans, we can drive sustainable change in Canadian multicultural context and beyond.

Limitations, Strengths, and Future Directions

This DQR has several limitations. Firstly, the small sample size ($n = 10$ MHPs) may restrict generalizability (Creswell, 2014). Future research could aim to recruit larger, more diverse samples using mixed-methods approaches to capture a broader range of experiences and enhance the richness and applicability of findings (Creswell & Plano Clark, 2018). Additionally, the purposive and snowball recruitment methods may have introduced sampling bias, impacting external validity (Bryman, 2012). Additional studies might benefit from exploring alternative sampling strategies, such as probability sampling methods (Creswell & Plano Clark, 2018), to reduce bias and improve representativeness.

Notwithstanding these limitations, this study has prominent strengths. To start, the in-depth interview approach allowed for rich, detailed data to be collected, providing a nuanced understanding of the phenomena (Creswell, 2014). Secondly, the findings of this study may have resonance or applicability in other contexts outside of Canada,

given the themes and patterns that emerged may be relevant to MHPs in similar settings. Furthermore, the involvement of participants in the results summary and the development of the FFMF was a significant strength of this study. This collaborative approach enhanced the validity and relevance of the FFMF, ensuring that it accurately reflected the constructed narratives of MHPs and clients.

Expanding the discourse, future research directions should consider utilizing qualitative methods, such as focus groups and conversational cafés, to co-create richer discussions among participants. *Focus groups* involve facilitated discussions with small, diverse groups to gather in-depth, qualitative data (Santhosh et al., 2021). Respectively, *conversational cafés* offer a unique approach, featuring informal, structured conversations that foster open dialogue and collaborative learning (Beech et al., 2020). Using these strategies would provide a more comprehensive understanding of the phenomena.

Additionally, the data collection and analysis process may have been influenced by the research team's own biases and assumptions. To mitigate this, we engaged in regular debriefing and reflexive practices to increase awareness around our biases and assumptions throughout the research process (Dixon & Chiang, 2020). We also conducted member checking to enhance the trustworthiness of the findings (Lincoln & Guba, 1985).

Moreover, although not a criteria expectation, the majority of MHPs identified as people of faith, which may have influenced the representation of MHPs with unique subjective realities. To ensure a more representative sample, future research should actively recruit MHPs from non-religious belief systems. This would enable comparisons with religious MHPs, exposing whether differences in faith accommodation in clinical practice yield distinct outcomes. Accounting for these caveats in future research can provide a more expansive understanding of MHPs' perceptions across various religious and spiritual traditions. These insights will be instrumental in developing more effective and practical faith-sensitive interventions to support MHPs' clinical practice.

Conclusion

In sum, our qualitative inquiry draws attention to the ethical imperative of amalgamating faith into clinical practice (CCPA, 2020). It further impresses on MHPs their obligation to judiciously arm themselves with faith-sensitive knowledge about interventions and frameworks, which obviates potential harm to clients. To achieve this, extensive training programs must address the intersections of faith, culture, and mental health for both MHPs and clients, considering how they understand and construct their world across multifaceted contexts (Burr, 2015). Policymakers should, therefore, create and implement supportive procedures and policies, equipping

MHPs with the essential tools required for culturally sensitive care.. Building on this viewpoint, advancing theoretical frameworks will give MHPs a solid foundation for faith-centered practice. To illustrate, the FFMF (see Figure 2) has the potential to transform clinical work, benefiting both MHPs and clients by providing a visual framework with core principles for effective engagement. Moreover, the study's results have long-term recommendations for the future of mental healthcare for immigrant clients of faith. For instance, strategies addressing the interplay of faith, culture, and mental health can produce a more inclusive and equitable healthcare system. This means that MHPs can better acknowledge and respect clients' diverse faith practices, leading to a sense of safety and trust in the therapeutic relationship (Sue et al., 2019).

We also argue that this research can mobilize knowledge cross-culturally, bridging gaps and expanding qualitative discourse around shared stories relative to faith practices and experiences. As a result, these co-constructed narratives have the potential to transform lives, foster resilience, and promote social justice cross-culturally (Gergen, 1991). Moving forward, MHPs must prioritize collaboration, focusing on the interaction of EBP and practice-based evidence (PBE) to enhance clinical work. By *PBE*, we mean that MHPs draw on clinical approaches and interventions honed through daily interactions, worldviews, and expertise with clients (Dixon, 2022). This rich clinical input broadens insight into clients' diverse needs, allowing MHPs to provide culturally sensitive and equitable care that aligns with each client's unique experience.

Looking ahead, our investigation illuminates the paradigm-shifting potential of faith competence in clinical settings. By embracing faith-centered care, MHPs can acquire the know-how to galvanize an inclusive and compassionate mental health system that values diversity and the intricacies of human experiences. To operationalize this vision, MHPs must develop faith expertise in theoretical frameworks, clinical applications, and policy formulation (Sue et al., 2019). This proficiency should be grounded in a holistic understanding of mind-body-spirit symbiosis. Through synergistic collaboration, we can forge a more luminous future for mental healthcare, benefiting individuals, communities, and society globally.

Acknowledgments. The authors extend their sincere gratitude to Harleen Sanghera for her invaluable contributions as a graduate research assistant on this study.

Ethics approval. Ethical approval was obtained from The University of Lethbridge HSRC. Informed consent was obtained from all participants.

Data Availability Statements. Data and materials are available upon request.

Disclosure Statement. The authors declare no competing interests.

Peer-review. This study was carefully reviewed by several experts in the field, with revisions incorporated based on

their insightful recommendations. We sincerely thank all of them, as well as the editor, for their contributions.

Funding. This study was funded by the Community of Research Excellence Development, Opportunities, University of Lethbridge. Grant number 13603-4305-8015.

Authors' contributions. Sandra Dixon, Associate Professor, designed the study, conducted interviews, completed data collection and analysis, interpreted results, and wrote and revised the manuscript. Juliane Bell, research assistant, crafted the outline for the manuscript and assisted with interviews, data collection, and results interpretation.

References

- American Psychological Association (APA). (2017). *Multicultural guidelines: An ecological approach to context, identity, and intersectionality*. <http://www.apa.org/about/policy/multicultural-guidelines.pdf>
- American Psychological Association (APA). (2018). APA adopts new multicultural guidelines. *Monitor on Psychology*, 49(1). <https://www.apa.org/monitor/2018/01/multicultural-guidelines>
- Anandarajah, G., & Hight, E. (2001). Spirituality and medical practice: Using the HOPE questions as a practical tool for spiritual assessment. *American Family Physician*, 63(1), 81–89.
- Antoniou, N., & Kalogeropoulos, D. (2024). Exploring the intersection of faith and mental health in religious clients. *Journal of Assessment and Research in Applied Counseling*, 6(3), 226–235. <https://doi.org/10.61838/kman.jarac.6.3.25>
- Arao, B., & Clemens, K. (2013). From safe spaces to brave spaces: A new way to frame dialogue around diversity and social justice. In L. M. Landreman (Ed.), *The art of effective facilitation: Reflections from social justice educators* (pp. 135–150). Stylus Publishing.
- Athari, M. (2020). *The healthy immigrant effect: A policy perspective* [Master's thesis, Simon Fraser University]. SFU Summit Research Repository. <https://summit.sfu.ca/item/20302>
- Beech, B. M., Norris, K. C., Thorpe, R. J., Jr., Heitman, E., & Bruce, M. A. (2020). Conversation cafés and conceptual framework formation for research training and mentoring of underrepresented faculty at historically Black colleges and universities: Obesity Health Disparities (OHD) PRIDE program. *Ethnicity & Disease*, 30(1), 83–90.
- Bernard, W. T., Maddalena, V., Njiwaji, M., & Darrell, D. M. (2014). The role of spirituality at end of life in Nova Scotia's Black community. *Journal of Religion & Spirituality in Social Work*, 33(3–4), 353–376. <https://doi.org/10.1080/15426432.2014.930622>

- Borneman, T., Ferrell, B., & Puchalski, C. M. (2010). Evaluation of the FICA tool for spiritual assessment. *Journal of Pain and Symptom Management*, 40(2), 163–173. <https://doi.org/10.1016/j.jpainsymman.2009.12.019>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brémault-Phillips, S., Olson, J., Brett-MacLean, P., Oneschuk, D., Sinclair, S., Magnus, R., Weis, J., Abbasi, M., Parmar, J., & Puchalski, C. M. (2015). Integrating spirituality as a key component of patient care. *Religions*, 6(2), 476–498. <https://doi.org/10.3390/rel6020476>
- Bryman, A. (2012). *Social research methods* (4th ed.). Oxford University Press.
- Bufford, R., Paloutzian, R., & Ellison, C. (1991). Norms for the Spiritual Well-Being Scale. *Journal of Psychology and Theology*, 19(1), 56–70. <https://doi.org/10.1177/009164719101900106>
- Burmeister, E., & Aitken, L. M. (2012). Sample size: How many is enough? *Australian Critical Care*, 25(4), 271–274. <https://doi.org/10.1016/j.aucc.2012.07.002>
- Burr, V. (2015). *Social constructionism* (3rd ed.). Routledge.
- Canadian Counselling and Psychotherapy Association (CCPA). (2020). *Code of ethics*. <https://www.ccpa-accp.ca/wp-content/uploads/2020/05/CCPA-2020-Code-of-Ethics-E-Book-EN.pdf>
- Canadian Psychological Association (CPA). (2017). *Canadian code of ethics for psychologists* (4th ed.). https://cpa.ca/docs/File/Ethics/CPA_Code_2017_4thEd.pdf
- Clarke, V., & Braun, V. (2018). Using thematic analysis in counselling and psychotherapy research: A critical reflection. *Counselling and Psychotherapy Research*, 18(2), 107–110. <https://doi.org/https://doi.org/10.1002/capr.12165>
- Colorafi, K. J., & Evans, B. (2016). Qualitative descriptive methods in health science research. *HERD: Health Environments Research & Design Journal*, 9(4), 16–25. <https://doi.org/10.1177/1937586715614171>
- Cook-Sather, A. (2016). Creating brave spaces within and through student-faculty pedagogical partnerships. *Teaching and Learning Together in Higher Education*, 1(18). <http://repository.brynmawr.edu/tlthe/vol1/iss18/1>
- Cornelissen, L. (2021, October 28). *Insights on Canadian society: Religiosity in Canada and its evolution from 1985 to 2019*. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/75-006-x/2021001/article/00010-eng.htm>
- Cotton, S., Puchalski, C. M., Sherman, S. N., Mrus, J. M., Peterman, A. H., Feinberg, L., Pargament, K. I., Justice, A. C., Leonard, A. C., & Tsevat, J. (2006). Spirituality and religion in patients with HIV/AIDS. *Journal of General Internal Medicine*, 21(Suppl. 5), S5–S13. <https://doi.org/10.1111/j.1525-1497.2006.00642.x>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed method approaches* (4th ed.). SAGE Publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- DeAngelis, T. (2015, March 1). In search of cultural competence. *Monitor on Psychology*, 46(3). <https://www.apa.org/monitor/2015/03/cultural-competence>
- Dixon, S. (2015). *Reconstructing cultural identities: The lived experiences of Jamaican Canadian immigrant women of the Pentecostal faith* [Doctoral dissertation, University of Calgary]. PRISM Online Repository. <https://doi.org/10.11575/PRISM/27561>

- Dixon, S. (2016). Making meaning of religious and spiritual cultural identities as a multicultural counsellor. *COGNICA: The Canadian Counselling and Psychotherapy Association's Official Bilingual Publication*, 48(4), 10-13. https://www.ccpa-accp.ca/wp-content/uploads/2016/11/COGNICAPDFFALL16_EN.pdf
- Dixon, S. (2019). The relevance of spirituality to cultural identity reconstruction for African-Caribbean immigrant women. In N. Arthur (Ed.), *Counselling in cultural contexts: Identities and social justice* (pp. 249–270). Springer Nature. https://doi.org/10.1007/978-3-030-00090-5_11
- Dixon, S. (2022, November 1). Evidence-based practice and practice-based evidence: Implications for psychological client-care. *Psymposium*, 33(3), 20. <https://psychologistsassociation.ab.ca/wp-content/uploads/2022/10/Final-EBP-and-PBE-PAA-Psymposium-Article-Dr-Sandra-Dixon.pdf>
- Dixon, S., & Arthur, N. M. (2019). Recognizing faith: A perspective on Black Caribbean immigrant women. *Canadian Journal of Counselling and Psychotherapy*, 53(2), 169–197. <https://cjc-rcc.ualgary.ca/article/view/61226>
- Dixon, S., & Bell, J. (2025). Faith in the therapy room: A qualitative study of Canadian immigrant clients' untold stories. *The Journal of Faith, Education, and Community*, 7(1), Article 4. <https://scholarworks.sfasu.edu/jfec/vol7/iss1/4>
- Dixon, S., & Chiang, C. M. (2020). Promoting reflexivity and reflectivity in counselling, education, and research. *Proceedings from the 2018 Canadian Counselling Psychology Conference*, 15–31. <https://doi.org/10.11575/PRISM/37385>
- Dixon, S., & Okoli, S. (2023). Culturally responsive interventions through a decolonial lens: Future directions. *CAP Monitor*, (75), 13-18. <https://www.cap.ab.ca/Portals/0/pdfs/Monitor/CAPMonitor75Final1.pdf>
- Dixon, S., & Smith, D. (2021). Religion/spirituality & group of seven. In A. Kassan & R. Moodley (Eds.), *Diversity & social justice in counseling psychology & psychotherapy: A case study approach* (pp. 261–272). Cognella Press.
- Dixon, S., & Wilcox, G. (2016). The counselling implications of neurotheology: A critical review. *Journal of Spirituality in Mental Health*, 18(2), 91–107. <https://doi.org/10.1080/19349637.2015.1064804>
- Dixon, S., Amin, D., & Arthur, N. (2023a). Giving voices to Jamaican Canadian immigrant women: A heuristic inquiry study. *The Qualitative Report*, 28(7), 2172–2212. <https://doi.org/10.46743/2160-3715/2023.4775>
- Dixon, S., Amin, D., & Varma, P. (2025). Utilizing faith to help Black Canadian women cope with social determinants of health: Implications for theory, practice, teaching, research, and policymaking. In R. Baikady, S. M. Sajid, J. Przeperski, V. Nadesan, M. Rezaul Islam, & G. Jianguo (Eds.), *The Palgrave handbook of global social problems* (pp. 1-28). Springer.
- Dixon, S., Batta, M., & Jidong, D. (2023b). Using intersectionality theory to explore the impact of COVID-19 pandemic on Black Canadian people's health. *Medical Research Archives*, 11(11). <https://doi.org/10.18103/mra.v11i11.4722>
- Dixon, S., Parks, S., Scarlett, S., & Yohani, S. (2023c, April 12). Moving beyond the mosaic: Exploring the impact of racial trauma on Black Canadians. *CAP Monitor*, (73), 18–23. <https://www.cap.ab.ca/Portals/0/pdfs/Monitor/CAP-Monitor-73-FINAL.pdf>
- Edwards, D., & Potter, J. (1992). *Discursive psychology*. SAGE Publications.
- Elshahat, S., Moffat, T., & Newbold, K. B. (2022). Understanding the healthy immigrant effect in the context of mental health challenges: A systematic critical review. *Journal of Immigrant and Minority Health*, 24(6), 1564–1579. <https://doi.org/10.1007/s10903-021-01313-5>

- Eni, R., Phillips-Beck, W., Achan, G. K., Lavoie, J. G., Kinew, K. A., & Katz, A. (2021). Decolonizing health in Canada: A Manitoba First Nation perspective. *International Journal for Equity in Health*, 20(1), Article 206. <https://doi.org/10.1186/s12939-021-01539-7>
- Fukuyama, M. A., & Sevig, T. D. (1999). *Integrating spirituality into multicultural counseling*. SAGE Publications.
- Gergen, K. J. (1991). *The saturated self: Dilemmas of identity in contemporary life*. Basic Books.
- Gergen, K. J. (2011). *Relational being: Beyond self and community*. Oxford University Press.
- Gergen, K. J. (2015). *An invitation to social construction* (3rd ed.). SAGE Publications.
- Government of Alberta. (2024). *Current provincial population estimates*. <https://www.alberta.ca/population-statistics>
- Government of Canada. (2023, June 20). *Common definitions on cultural safety: Chief public health officer health professional forum*. Public Health Agency of Canada. <https://www.canada.ca/en/health-canada/services/publications/health-system-services/chief-public-health-officer-health-professional-forum-common-definitions-cultural-safety.html>
- Government of Canada. (2024, July 18). *Social determinants of health and health inequities*. <https://www.canada.ca/en/public-health/services/health-promotion/population-health/what-determines-health.html>
- Gubi, P. M. (2009). A qualitative exploration into how the use of prayer in counselling and psychotherapy might be ethically problematic. *Counselling and Psychotherapy Research*, 9(2), 115–121. <https://doi.org/10.1080/14733140802685312>
- Gubi, P. M., & Jacobs, R. (2009). Exploring the impact on counsellors of working with spiritually abused clients. *Mental Health, Religion & Culture*, 12(2), 191–204. <https://doi.org/10.1080/13674670802441509>
- Hechinger, M., Mayer, H., & Fringer, A. (2019). Kenneth Gergen’s concept of multi-being: An application to the nurse-patient relationship. *Medicine, Health Care and Philosophy*, 22(4), 599–611. <https://doi.org/10.1007/s11019-019-09897-4>
- Hele, K. (2023, December 19). Colonialism in Canada. In *The Canadian Encyclopedia*. <https://www.thecanadianencyclopedia.ca/en/article/colonialism-in-canada>
- Horvath, A. O., Del Re, A. C., Flückiger, C., & Symonds, D. (2011). Alliance in psychotherapy. In J. C. Norcross (Ed.), *Psychotherapy relationships that work: Evidence-based responsiveness* (2nd ed., pp. 25–69). Oxford University Press.
- Jacob, S. A., & Furgerson, S. P. (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *The Qualitative Report*, 17(42), 1–10. <https://doi.org/10.46743/2160-3715/2012.1718>
- Kassan, A., & Moodley, R. (Eds.). (2021). *Diversity and social justice in counseling, psychology, and psychotherapy: A case study approach*. Cognella Press.
- Kim, H., Sefcik, J. S., & Bradway, C. (2017). Characteristics of qualitative descriptive studies: A systematic review. *Research in Nursing & Health*, 40(1), 23–42. <https://doi.org/10.1002/nur.21768>
- Koenig, H. G. (2010). Concerns about measuring “spirituality” in research. *The Journal of Nervous and Mental Disease*, 196(5), 349–355. <https://doi.org/10.1097/NMD.0b013e31816ff796>
- Koenig, H. G. (2012). Religion, spirituality, and health: The research and clinical implications. *ISRN Psychiatry*, 2012, Article 278730. <https://doi.org/10.5402/2012/278730>

- Lock, A., & Strong, T. (Eds.). (2012). *Discursive perspectives in therapeutic practice*. Oxford University Press.
- Lucchetti, G., Bassi, R., & Lucchetti, A. (2013). Taking spiritual history in clinical practice: A systematic review of instruments. *Explore*, 9(3), 159–170. <https://doi.org/10.1016/j.explore.2013.02.004>
- Maier, K., Konaszewski, K., Skalski, S. B., Büssing, A., & Surzykiewicz, J. (2022). Spiritual needs, religious coping and mental wellbeing: A cross-sectional study among migrants and refugees in Germany. *International Journal of Environmental Research and Public Health*, 19(6), Article 3415. <https://doi.org/https://doi.org/10.3390/ijerph19063415>
- Martinez, S., & Mahoney, A. (2022). Culturally sensitive behavior intervention materials: A tutorial for practicing behavior analysts. *Behavior Analysis in Practice*, 15(2), 516–540. <https://doi.org/10.1007/s40617-022-00703-x>
- Moodley, R., & Barnes, C. (2015). Multiculturalism, religion and counselling: Freedom to heal. In G. Nolan & W. West (Eds.), *Therapy, culture and spirituality: Developing therapeutic practice* (pp. 7–23). Palgrave Macmillan.
- Morgan, B., & Simmons, L. (2021). A ‘PERMA’ response to the pandemic: An online positive education programme to promote wellbeing in university students. *Frontiers in Education*, 6, Article 642632. <https://doi.org/10.3389/feduc.2021.642632>
- National Institute of Mental Health. (2024, December). *Caring for your mental health*. <https://www.nimh.nih.gov/health/topics/caring-for-your-mental-health>
- Okoniewski, W., Sundaram, M., Chaves-Gnecco, D., McAnany, K., Cowden, J. D., & Ragavan, M. (2022). Culturally sensitive interventions in pediatric primary care settings: A systematic review. *Pediatrics*, 149(2), Article e2021052162. <https://doi.org/10.1542/peds.2021-052162>
- Opeskin, B. R., Perruchoud, R., & Redpath-Cross, J. (Eds.). (2012). *Foundations of international migration law*. Cambridge University Press.
- Paloutzian, R. F., & Ellison, C. W. (1982). Loneliness, spiritual well-being and the quality of life. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 224–236). Wiley-Interscience.
- Pargament, K. I., Mahoney, A., Exline, J. J., Jones, J. W., & Shafranske, E. P. (2013). Envisioning an integrative paradigm for the psychology of religion and spirituality. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), *APA handbook of psychology, religion, and spirituality (Vol 1): Context, theory, and research* (pp. 3–20). American Psychological Association.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
- Pero, R. (2018). Immigrant experiences in North America: Understanding settlement and integration. *The AAG Review of Books*, 6(2), 93–94. <https://doi.org/10.1080/2325548X.2018.1440833>
- Plumb, A. M. (2011). Spirituality and counselling: Are counsellors prepared to integrate religion and spirituality into therapeutic work with clients? *Canadian Journal of Counselling and Psychotherapy*, 45(1). <https://cjc-rcc.ucalgary.ca/article/view/59300>
- Puchalski, C. (2006). Spiritual assessment in clinical practice. *Psychiatric Annals*, 36(3), 150–155. <https://doi.org/10.3928/00485713-20060301-06>
- Puchalski, C., & Romer, A. L. (2000). Taking a spiritual history allows clinicians to understand patients more fully. *Journal of Palliative Medicine*, 3(1), 129–137. <https://doi.org/10.1089/jpm.2000.3.129>

- Reimer, S. (2003). *Evangelicals and the continental divide: The conservative Protestant subculture in Canada and the United States*. McGill-Queen's University Press.
- Rogers, M., Wattis, J., Moser, R., Borthwick, R., Waters, P., & Rickford, R. (2021). Views of mental health practitioners on spirituality in clinical practice, with special reference to the concepts of spiritually competent practice, availability and vulnerability: A qualitative evaluation. *Journal for the Study of Spirituality*, 11(1), 7–23. <https://doi.org/10.1080/20440243.2021.1857624>
- Rowe, W. E. (2014). Positionality. In D. Coghlan & M. Brydon-Miller (Eds.). *The SAGE encyclopedia of action research* (Vol. 2, pp. 628). SAGE Publications.
- Salami, B., Hegadoren, K., Bautista, L., Ben-Shlomo, Y., Diaz, E., Rammohan, A., Meherali, S., Chiu, Y., Nsaliwa, C., & Yaskina, M. (2017). *Mental health of immigrants and non-immigrants in Canada: Evidence from the Canadian health measures survey and service provider interviews in Alberta*. PolicyWise for Children and Families. <https://policywise.com/wp-content/uploads/resources/2017/04/2017-04APR-27-Scientific-Report-15SM-SalamiHegadoren.pdf>
- Sanerma, P., Miettinen, S., Paavilainen, E., & Åstedt-Kurki, P. (2020). A client-centered approach in home care for older persons – An integrative review. *Scandinavian Journal of Primary Health Care*, 38(4), 369–380. <https://doi.org/10.1080/02813432.2020.1841517>
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health*, 23(4), 334–340.
- Santhosh, L., Rojas, J. C., & Lyons, P. G. (2021). Zooming into focus groups: Strategies for qualitative research in the era of social distancing. *ATS Scholar*, 2(2), 176–184. <https://doi.org/10.34197/ats-scholar.2020-0127PS>
- Savin-Baden, M., & Major, C. H. (2013). *Qualitative research: The essential guide to theory and practice*. Routledge.
- Seligman, M. E. P. (2011). *Flourish: A new understanding of happiness and wellbeing and how to achieve them*. Free Press.
- Shafranske, E. P. (2000). Religion and psychotherapy: Beliefs and training of psychotherapists. In A. E. Kazdin (Ed.), *Encyclopedia of psychology* (Vol. 7, pp. 46–48). Oxford University Press.
- Shotter, J. (1987). The social construction of an “us”: Problems of accountability and narratology. In R. Burnett, P. McGhee, & D. Clarke (Eds.), *Accounting for personal relationships: Explanation, representation and knowledge* (pp. 225–247). Methuen.
- Statistics Canada. (2022, October 26). *Immigrants make up the largest share of the population in over 150 years and continue to shape who we are as Canadians*. The Daily. <https://www150.statcan.gc.ca/n1/daily-quotidien/221026/dq221026a-eng.htm>
- Statistics Canada. (2024, June 19). *Canada's population estimates, first quarter*. The Daily. <https://www150.statcan.gc.ca/n1/daily-quotidien/240619/dq240619a-eng.htm>
- Sue, D. W., Sue, D., Neville, H. A., & Smith, L. (2019). *Counseling the culturally diverse: Theory and practice* (8th ed.). John Wiley & Sons, Inc.
- Sue, S., Zane, N., Hall, G. C. N., & Berger, L. K. (2009). The case for cultural competency in psychotherapeutic interventions. *Annual Reviews Psychology*, 60, 525–548. <https://doi.org/10.1146/annurev.psych.60.110707.163651>
- Tervalon, M., & Murray-García, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved*, 9(2), 117–125. <https://doi.org/10.1353/hpu.2010.0233>

- Vieten, C., & Scammell, S. (2015). *Spiritual and religious competencies in clinical practice: Guidelines for psychotherapists and mental health professionals*. New Harbinger Publications.
- Vieten, C., Oxhandler, H. K., Pearce, M., Fry, N., Tanega, C., & Pargament, K. (2023). Mental health professionals' perspectives on the relevance of religion and spirituality to mental health care. *BMC Psychology*, 11, Article 439. <https://doi.org/10.1186/s40359-023-01466-y>
- Wade, N. G., Cornish, M. A., Tucker, J. R., Worthington, E. L., Jr., Sandage, S. J., & Rye, M. S. (2018). Promoting forgiveness: Characteristics of the treatment, the clients, and their interaction. *Journal of Counseling Psychology*, 65(3), 358–371. <https://doi.org/10.1037/cou0000260>
- Walker, D. F., Gorsuch, R. L., & Tan, S. Y. (2011). Therapists' integration of religion and spirituality in counseling: A meta-analysis. *Counseling and Values*, 9(1), 69–80. <https://doi.org/10.1002/j.2161-007X.2004.tb00254.x>
- Weber, S. R., & Pargament, K. I. (2014). The role of religion and spirituality in mental health. *Current Opinion in Psychiatry*, 27(5), 358–363. <https://doi.org/10.1097/YCO.0000000000000080>
- Yip, S. Y. (2024). Positionality and reflexivity: Negotiating insider-outsider positions within and across cultures. *International Journal of Research & Method in Education*, 47(3), 222–232. <https://doi.org/10.1080/1743727X.2023.2266375>



Faculty of Education

Introduction

I would like to thank you for your interest in participating in this study. The purpose of this research is to explore two questions: *How do immigrants describe their experiences of faith in the counselling context while maintaining meaningful relationships with mental health professionals (MHPs), and are their faith and faith practices considered and/or accommodated by MHPs?* By engaging in this study, your stories will be heard and respected, as I hope to obtain a better understanding of this area of research for counselling professionals and immigrant populations in Alberta.

To start, I will ask you to provide the following demographic information. Please note that this demographic data will be used only for the purpose of this study. All necessary steps will be taken to ensure that no individual demographic information will be revealed. Although demographic information will be included in any dissemination of the aggregated findings, pseudonyms will be used to ensure participants' anonymity.

Mental Health Professionals - Demographic Information (To be filled out at each interview)

Pseudonym:

Age:

Self-identified gender:

Self-identified pronouns:

Race:

Nationality:

Cultural background:

Highest level of education completed:

Years of Counselling Experience:

Type of Occupation:

Length of time living in Canada, if applicable:

Faith affiliation, if any:

Interview Protocol

Initial Question:

1. Tell me about how you accommodate and/or consider faith in your counselling practice in order maintain meaningful relationships with clients who identify themselves as immigrants of faith?

Faith Questions:

2. How would you describe faith?
3. Would you self-identify as a person of faith?
4. Describe what faith means to you.
5. Describe how you use faith in your daily life, if any at all.
6. Describe some of the faith practices you use in your daily life, if any at all.
7. Describe how your faith AND faith practices provide you with ways of coping, if any.
8. Describe how your knowledge of faith has evolved over time in your work with

clients who are immigrants of faith?

9. Describe how you broach the topic of faith with immigrant clients of faith?
10. How do you support immigrant clients whose worldview about faith might be different from yours? Give examples.
11. Describe ways in which you learn about clients' faith in your work?

Cultural Questions:

12. Describe some ways in which you have demonstrated cultural sensitivity in your work with immigrant clients of faith?
13. Describe how you support immigrant clients of faith whose cultural worldview might be different from yours?
14. Describe how your knowledge of cultural sensitivity impact your treatment of immigrant clients of faith? Provide examples.

Counselling Questions:

15. Describe some of the ways you accommodate and / or consider faith in your work with clients?
16. Describe some of the ways that you accommodate and / or consider faith practices into your work with clients?
17. Describe some of the faith practices you feel comfortable using in the counselling session with clients? Provide examples.
18. Describe some of the strategies you have used to help immigrant clients whose worldview of faith might be different from yours?
19. Describe your willingness to engage in faith-based practices with clients?
 - a. *Probing question: Describe to what extent you would go to engage in these practices with immigrant clients? Provide examples.*
20. Describe what might be some ethical issues in counselling when using faith-based practices with clients who are immigrants?
21. Describe how you address any ethical issues that you might encounter in your practice around faith with clients who are immigrants? Provide examples.

a. Probing question: Describe what strategies you use to address these issues. Provide examples.

22. Describe how working with immigrant clients of faith relate to multicultural counselling and social justice practices.
23. Describe how working with immigrants of faith has helped you to develop culturally sensitive working alliance with these individuals.
24. What might get in the way of you accommodating and/or considering faith AND faith practices in your work with clients who are immigrants?

Competency:


25. What are you doing around your professional development to enhance your work with immigrant clients of faith?
26. Describe some of the ways that you enhance your competency regarding immigrant clients' faith AND faith practices?
27. Describe how your training of counselling prepared you to address issues related to faith with clients who are immigrants, if any?
 - a. Probing question: Provide examples of this training.*
28. Describe how has your training of counselling prepared to accommodate and/or consider immigrant clients' faith AND faith practices?

Last Questions:

29. What are some implications for policy when working with immigrant clients of faith?
30. What are some implications for practice when working with immigrant clients of faith?
31. I would like to thank you for your time in participating in this interview. Before we wrap up, I would like to ask if you had anything else that you would like to say.



Mental Health Literacy and Psychological Help-Seeking Attitudes among University Students: A Moderated Mediation Model of Distress Disclosure and Religiosity

Henry Samuel Edosomwan¹ 
Delta State University

¹ Department of Psychology, Faculty of the Social Sciences, Delta State University, Abraka, Nigeria. E-mail: hsedosomwan@delsu.edu.ng

Abstract

The university experience challenges students mentally and physically, increasing their need for psychological support from trained professionals at universities' counselling and psychological support centres. However, the mechanisms driving favourable attitudes toward seeking professional psychological help remain insufficiently explored. Consequently, this study investigates the relationship between mental health literacy (MHL) and psychological help-seeking attitudes (PHSA) through a moderated mediation model involving distress disclosure (DD) and religiosity. The study sampled 320 undergraduates from the Abraka campus of Delta State University, Nigeria. The sample consists of 116(36.3%) males and 204(63.7%) females with an average age of 20.75 years ($SD = \pm 2.51$). The data was collected using standardised instruments with established psychometric properties. A regression-based analysis complemented by model 4 and model 14 of the PROCESS Macro plug-in tool through version 25 of the IBM-SPSS Statistics was adopted for testing the hypotheses. The results reveal that MHL and DD positively and significantly predict PHSA. Additionally, MHL positively and significantly predicts DD. The analysis confirms that DD mediates the relationship between MHL and PHSA, while religiosity moderates the relationship between DD and PHSA. The index of moderated mediation is also significant. Further analysis indicates that the positive impact of MHL on PHSA through DD decreases as religiosity increases and increases as religiosity decreases. These findings emphasise the importance of MHL, DD, and religiosity in shaping PHSA. The study highlights key barriers to seeking professional psychological help and provides valuable insights for designing mental health interventions in higher institutions. Based on these findings, the study concludes that policymakers should consider MHL, DD, and religiosity when developing strategies to enhance favourable PHSA.

Keywords:

Distress disclosure • Mental health literacy • Psychological help-seeking attitudes • Religiosity • University students

Corresponding author:

Henry Samuel Edosomwan

E-mail: hsedosomwan@delsu.edu.ng

eISSN: 2458-9675

Received: 06.09.2024

Revision: 22.01.2025

Accepted: 24.01.2025

©Copyright 2025 by Author(s)

Citation: Edosomwan, H. S. (2025). Mental health literacy and psychological help-seeking attitudes among university students: A moderated mediation model of distress disclosure and religiosity. *Spiritual Psychology and Counseling*, 10(2), 229–256. <http://doi.org/10.37898/spiritualpc.1544456>

Introduction

Health is considered a condition of total physical, mental, and social well-being and not only the absence of sickness or infirmity (World Health Organisation, 2024). Mental health is an essential component of overall health. This is evident given the extensive research conducted on mental health and general psychological well-being (e.g., Baklola et al., 2024; Duran & Ergun, 2023; Rafal et al., 2018). According to the World Health Organisation (WHO), mental health is a condition of well-being in which individuals can reach their full potential, manage everyday stressors, be productive, and give back to their community. Nigeria is one of the nations most affected by mental health issues, with a significant amount of Nigerians suffering from various mental illnesses (Onyemelukwe, 2016; Suleiman, 2017; Wada et al., 2021). Nigeria ranks as the fifth most suicide-prone country in the world due to the prevalence of mental illness (Suleiman, 2017). Despite its crucial role in health and well-being, mental health has received inadequate attention in Nigeria. According to estimates by the WHO in 2017, 450 million people worldwide suffer from a mental problem, and 25% of people will experience mental disease at some point in their lives. Hence, no one is immune to mental illness. Mental health issues can affect anyone, irrespective of their age, gender, race, social position, or financial status (Lee et al., 2023).

The university experience can be physically and mentally challenging for young people. Research has shown that mental health issues such as anxiety and depression are prevalent among young adults aged 18-30 (Li et al., 2018; Solmi et al., 2022). Mental health illnesses are often less evident, and many young people remain unaware of the various mental health disorders that exist (Lee et al., 2023). As a result, prejudice, stigma, misconceptions, and concealment of mental health issues remain widespread. In 2019, the Africa Polling Institute (API) and EpiAFRIC conducted a survey on mental health in Nigeria. The results revealed a low level of mental health awareness in Nigeria, with most respondents attributing mental health disorders to causes such as drug abuse, possession by evil spirits, and brain illness. The majority of patients are referred to prayer houses for spiritual interventions. Notably, prior studies have shown that Nigerians prefer to handle their suffering or turn to unofficial resources (such as friends, family, religious communities, and traditional healers) for assistance rather than seeking help from a mental health professional (Labinjo et al., 2021). Nigerians are highly spiritual and religious people, and those with mental health issues frequently go to faith leaders first, believing that spirituality and religion can be helpful in the healing process.

While research suggests that religion and spirituality may positively influence mental health by fostering positive beliefs, a sense of community and support, and constructive religious coping mechanisms, they also pose challenges. Poor religious coping mechanisms, misunderstandings, miscommunications, and harmful perspectives can negatively impact mental health (Garssen et al., 2021; Weber &

Pargament, 2014). Recognising the role of trained mental health professionals remains the best fix to mental health issues. Promoting mental health literacy (MHL) and encouraging the need to seek professional psychological help are essential to ensuring that affected adults and young people do not have to suffer in silence. The importance of information regarding what constitutes mental health cannot be overstated. This is because information builds knowledge about mental health and, in turn, influences people's attitude towards mental health-related issues.

Literature Gap Analysis

Research conducted using various methodologies across different countries in Sub-Saharan Africa has highlighted a lack of knowledge regarding the prevention and identification of mental health disorders, the provision of initial support to individuals exhibiting mental health issues, and the available forms of help that are accessible to the general public, as well as specific age groups. Additionally, studies conducted in Nigeria have shown the need to raise MHL among young people, as the knowledge and awareness of mental health illnesses remain poor (Aluh et al., 2018; Aluh et al., 2019; Lawal et al., 2024). These are possible indicators that young people are unlikely to seek the help of a psychologist or counsellor when they are going through mental distress. Thus, this study focuses on understanding and explaining young people's psychological help-seeking attitudes (PHSA).

PHSA is the cognitive, emotional, and behavioural tendencies toward professional psychological help-seeking behaviour when individuals experience psychological problems or diseases (Mackenzie et al., 2004; Yang et al., 2023). An individual's positive or negative response to any mental health issue is largely influenced by their attitude toward getting psychological help. Understanding PHSA among Nigerian students could have implications for the development and provision of psychological and counselling services in higher educational institutions across Nigeria, as attitudes have been proven to be substantially correlated with actual help-seeking (Hlongwane & Juby, 2023).

A few observations in the literature highlight the need for this study. The first observation relates to the recurring antecedents of PHSA that have been frequently examined in the literature. Despite a significant increase in the body of research on the antecedents of PHSA, the majority of studies have concentrated on the topic of MHL with less emphasis on other potential factors that could promote or hinder PHSA. Studies examining the effect of MHL and distress disclosure (DD) on PHSA are scarce in the Nigerian literature and other sub-Saharan African countries. There is a paucity of literature examining MHL and DD as possible reasons for seeking professional psychological help in Nigeria. At a more complex level, the mediating role of DD and the moderating role of religiosity in the proposed mediation of DD on the relationship between MHL and PHSA remain unclear.

Furthermore, there exists a limited number of studies utilising the social cognitive theory to explain the interplay among the variables examined in this model. By adopting this framework - specifically the theory of planned behaviour - the study captures the critical roles of the social environment and the individual cognitive processes in seeking professional psychological assistance. Therefore, understanding the factors and inter-mechanisms associated with professional PHSA is crucial. Consequently, this study aims to examine the associated factors (MHL and DD) of PHSA, and the moderating effects of young people's levels of religiosity on the nexus among MHL, DD, and PHSA.

Theoretical Background

Numerous social cognitive theories have been developed to comprehend health behaviours. These include the informational-motivational-behavioural model, the theory of planned behaviour (TPB), and the health belief model. This study adopts the theory of planned behaviour to explain possible antecedents and consequences of PHSA among university students. The TPB paradigm (Ajzen, 1985; Ajzen & Fishbein, 1980) is strongly connected to the factors that predict psychological help-seeking intentions, such as attitudes, perceived group norms, and perceived behavioural control. The theory states that people believe specific behaviours will lead to particular outcomes. Individuals form attitudes based on how they assess these beliefs as favourable or unfavourable (Ajzen, 1985; Ajzen & Fishbein, 1980). Stated differently, forming an intention to engage in a behaviour is a prerequisite for the behaviour to occur. The likelihood of a behaviour increases with the strength of the intention. Positive attitudes, subjective norms and strong behavioural control boost an individual's intention to carry out the behaviour (Ajzen, 2006; Shukri et al., 2016).

An individual's PHSA indicates how they feel about it, whether positively or negatively. An individual's interaction with their surroundings is expressed through their subjective norm. It is the perceived external pressure that a person feels when engaging in a behaviour. Thus, it may be claimed that an individual's behaviour in seeking psychological help is largely determined by the expectations and judgments of their social surroundings (Aras & Peker, 2024). Perceived behavioural control refers to an individual's belief in their ability to perform a certain behaviour. The intention to engage in a behaviour is increased when a person feels confident performing it (Song & Park, 2015). The ability to manage one's behaviour depends on one's level of confidence and the absence of barriers (Aras & Peker, 2024). Therefore, an individual with the capacity to share how they feel with others (DD) and those with substantial information about mental health (which provides a sense of control and boosts self-efficacy) may be inclined to seek psychological help.

In application, TPB is built on the notion that attitudes toward the behaviour (seeking psychological help), the subjective norm for the behaviour (e.g., religiosity) and perceived control over the behaviour (e.g., MHL and DD) are predictors of intentions to seek the help of a professional for mental health issues. The most direct indicator of actual behaviour is intention. TPB highlights the significance of using a multifaceted approach to describe what influences a person's intention to engage in a behaviour. For instance, if a person's attitude is primarily shaped by subjective norms that are contradictory to psychological help-seeking (e.g., religious labelling of mental health issues and strong negative perceived stigmatisation), changing the person's attitude alone through an intervention may not be the most effective strategy to seeking psychological treatment. Hence, the place of self-efficacy and behavioural control factors such as positive DD and high MHL are essential.

Literature Review and Hypotheses Development

Mental Health Literacy and Psychological Help-Seeking Attitudes

Research over the last decade has demonstrated that MHL is a significant factor influencing people's mental health as well as their dispositions and attitudes towards seeking help for mental health-related issues. According to Healthy People (2020), health literacy is "the degree to which individuals can obtain, process, and understand basic health information and services needed to make appropriate health decisions." According to Berkman et al. (as cited in Walker, 2021), there exists a correlation between low health literacy and low self-reported health status among young adults, even after controlling for education and other predictors of health. MHL was first introduced in the literature in 1997. It is defined as the knowledge and attitudes regarding mental health and mental illnesses that support the identification, treatment, and avoidance of mental health issues or disorders (Jorm et al., 1997; Muslic et al., 2021).

MHL encompasses basic knowledge and understanding of mental disorders and their treatments, techniques for lessening stigma and increasing the efficacy of help-seeking, and information and tactics for obtaining and sustaining mental health (Kutcher et al., 2015; Kutcher et al., 2016). The tripartite attitude model (also known as the ABC model of attitudes- where A stands for "Affective components," B for "Behavioural components," and C for "Cognitive components") is a useful model that highlights the role of MHL as captured by the cognitive component of attitude. MHL is a cognitive factor that can influence people's attitudes.

Several empirical studies have demonstrated a positive correlation between greater levels of MHL and PHSA. For example, Yang et al. (2023) examined the link between MHL and professional PHSA and found that the willingness to accept professional psychological assistance largely depends on the levels of MHL. Thus, the greater

the amount of MHL, the more open an individual is to seeking professional help for mental health problems. A comprehensive analysis of 53 studies revealed that 96% of them demonstrated a substantial positive association between young people's PHSA and MHL (Rafal et al., 2018). Studies using student samples have revealed that a major barrier to forming favourable PHSA was a lack of knowledge about mental health; many of these studies reveal a robust and positive correlation between young people's attitudes toward obtaining psychological help and their knowledge of mental health (Baklola et al., 2024; Duran & Ergun, 2023; Fazlifar et al., 2024; Kantaş Yılmaz & Ünkür, 2023; Zheng et al., 2023). Therefore, it is hypothesised that MHL positively predicts PHSA.

Mental Health Literacy and Distress Disclosure

Studies examining the link between MHL and DD are limited in the literature. DD refers to the willingness of an individual to confide in and express their negative emotions and sensations to others rather than keeping them to themselves (Coates & Winston, 1987; Yang et al., 2023). The tripartite model of attitude also highlights the importance of behavioural inclination. In particular, when individuals affirm a behavioural statement, it suggests a significant increase in the likelihood of engaging or taking action. In this context, seeking psychological help can lower the levels of psychological distress (Keum et al., 2023; Yang et al., 2023). Additionally, according to the TPB, DD represents a form of perceived behavioural control which enables the individual to avoid concealment and seek psychological help.

According to Aras and Peker (2024), the capacity to regulate one's behaviour is contingent upon the degree of self-confidence and the clear absence of obstacles. Information about mental health (MHL) can offer one a sense of control, increase efficacy, and promote DD (Yang et al., 2023). Those who can disclose their discomfort to others are more likely to seek psychological help (Yang et al., 2023). A few studies have demonstrated a positive association between sufficient knowledge of mental health and DD (Dopmeier et al., 2020; Schlechter et al., 2021; Traynor et al., 2024; Yang et al., 2023). Based on this review, it is hypothesised that MHL positively predicts DD.

Distress Disclosure and Psychological Help-Seeking Attitudes

Empirical studies have shown that DD can reduce negative emotions and feelings of discomfort among young people. For example, a study conducted by Keum et al. (2023) on DD and psychological distress among men indicated that DD can reduce psychological distress. In another study, Wagner and Reifegerte (2024) found that depressiveness is positively correlated with concealment or non-disclosure of mental distress. This suggests that men who disclose their distress may be using a socially acceptable tactic to feel understood and connected to others, thereby reducing

psychological distress. Recently, Ugwu et al. (2024) found that emotional intelligence and DD mitigate the effects of trauma among adolescents. Additionally, DD has been shown to increase quality of life (Bu et al., 2023; Tao et al., 2024) and enhance help-seeking attitudes (Schlecter et al., 2021; Yang et al., 2023). Consequently, it is hypothesised that DD positively predicts PHSA.

Mediating Role of Distress Disclosure on MHL-PHSA Linkage

According to the theoretical foundations and prior empirical studies on the nexus among MHL, DD, and PHSA, DD may act as a mediator in the link between MHL and PHSA (Keum et al., 2023; Ugwu et al., 2024; Yang et al., 2023). DD has been found to mediate the relationship between trait rumination and post-stress growth (Wang et al., 2023). Therefore, it is hypothesised that DD has an indirect effect on the MHL-PHSA relationship.

Religiosity as a Moderator

Religiosity refers to the formal, institutional, and outward expression of a person's relationship with the sacred or divine (Cotton et al., 2006). It is usually operationalised as the behaviours and beliefs connected to a certain religious group or community (Iannello et al., 2019). It describes people's levels of commitment and devotion to their religious affiliation or community. The relationship between religiosity and its mechanisms, such as religious coping, morality, and shared connectedness, on an individual's views and behaviours have long been established in the literature (e.g., Syafitri & Rahmah, 2021; Umair et al., 2023). It has been noted that religiosity enhances the predictive power of the theoretical model because it has been successfully employed in studies utilising the theory of planned behaviour (Aminnuddin, 2019; Mahmud & Yusof, 2018).

Religiosity impacts PHSA for at least three basic reasons. The first is the difference in religious views between mental health practitioners and their clients. Clients may feel that their beliefs differ from those of their therapist, which can make it difficult for them to ask for help. Clients high in religiosity may seek out professionals with a strong religious background (Gregory et al., 2008). Second, clients face a more significant conundrum: they are unsure about whether to reveal their religious beliefs throughout the therapeutic process because they think it may undermine their confidence in secular treatment (Syafitri & Rahmah, 2021). Third, religiosity is characterised by a unique coping mechanism (religious coping) that can sometimes lead individuals to believe that they do not need the help of a mental health professional. Studies have shown that young people who engage in this behaviour have positive attitudes to religious help-seeking and hold negative PHSA (Smolak et al., 2013; Wamser et al., 2011). According to previous research, only about 30% of individuals with mental

health illnesses seek out psychological assistance; the remaining turn to friends, family, or another informal form of support such as religious leaders (Brown et al., 2014; Syafitri & Rahmah, 2021).

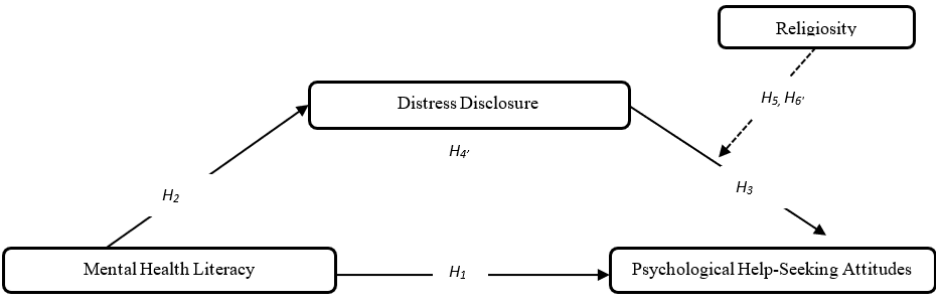
According to the findings of the African Polling Institute and EpiAFRIC (2019), there is a low level of awareness regarding mental health issues in Nigeria. Most respondents acknowledged having a mental health condition and believed it was usually caused by drug addiction, brain illness, or possession by evil spirits. For interventions, most patients are referred to prayer houses or prefer to use spiritual means. Earlier research has specifically shown that Nigerians are more likely to manage their pain or seek support from unofficial sources (friends, family, religious groups, and traditional healers) than from mental health professionals (Labinjo et al., 2021).

Because Nigerians are very spiritual and religious, they typically seek the advice of faith leaders first (e.g., pastors, imams, priests, etc.) when they have mental health problems. Studies have shown that individuals high in religiosity show greater reluctance to seek formal psychological assistance (Moreno & Cardemil, 2018; Moreno et al., 2017). It has also been reported that religiosity does not significantly affect help-seeking intention (Rogers-Sirin et al., 2017; Syafitri & Rahmah, 2020) while Fekih-Romdhane et al. (2023) reported a favourable association between religiosity and PHSA.

The inconsistencies in these studies justify examining the moderating and conditioning impact of religiosity on PHSA in the presence of MHL and DD. Thus, it is proposed that religiosity moderates the direct link between DD and PHSA such that higher levels of religiosity decrease the association and lower levels of religiosity increase it. Religiosity may also moderate the mediated path between MHL and PHSA

Figure 1.

Figure 1 shows the hypothesised model for the direct, indirect, conditional, and conditional indirect effects.



through DD. Empirical studies have shown that religiosity moderates the relationship between anxiety and quality of life (Al-Shaer et al., 2024), and the nexus between stigma for mental illness and PHSA (Fekih-Romdhane et al., 2023). Therefore, it is hypothesised that higher religiosity reduces the MHL-PHSA linkage through DD.

Based on the theoretical and empirical literature reviewed, and in line with the research objectives and hypothesised model, the following hypotheses have been formulated for this study.

H₁: Mental health literacy positively predicts PHSA.

H₂: Mental health literacy positively predicts distress disclosure.

H₃: Distress disclosure positively predicts PHSA

H₄: Distress disclosure mediates the relationship between MHL and PHSA.

H₅: Religiosity moderates the relationship between DD and PHSA such that the relationship would be stronger when religiosity is low than when it is high.

H₆: Religiosity moderates the indirect effect of DD on the relationship between MHL and PHSA such that the relationship would be stronger when religiosity is low than when it is high.

Method

Participants

The participants consisted of 320 undergraduate students sampled from the Abraka campus of Delta State University, Nigeria. The sample comprises 116(36.3%) males and 204(63.7%) females with an average age of 20.75 years ($SD = \pm 2.51$). The age distribution of the participants showed that their ages ranged from 16 – 30 years. A descriptive breakdown of the age ranges showed that 174(54.4%) of the participants were under 21 years old, 128(40.0%) were between 21-25 years old, and 18(5.6%) were between 26 -30 years old. The results also showed that 317 (99.1%) of the participants were single, while 3(0.9%) were married. Also, most of the participants were in their second year 117(36.6%) and first year 86(26.9%) respectively. Those in third, fourth and fifth year comprised 52(16.3%), 61(19.1%), and 4(1.3%) of the sample respectively. The participants were drawn from six faculties: Arts, Basic Medical Science, Management Sciences, Pharmacy, Sciences, and Social Sciences, with the faculty of management science having the highest number of participants (24.1%).

To ascertain the impact of exposure to mental health problems, information about both direct and indirect experiences was collected and coded using a yes/

no response format. Based on this, 278(86.9%) of the participants indicated that they had experienced mental health problems, while 42(13.1%) indicated that they had not. Secondly, 279(87.2%) indicated that they had cared for someone or were a relative of someone who had experienced a mental health problem. Thirdly, 200(62.5%) reported that they had faced mental health challenges at the university, while 120(37.5%) indicated they had not experienced mental health problems at the university. Furthermore, to assess the reported levels of religiosity a yes/no question was used to capture the number of participants who consider themselves religious. The analysis showed that 289(90.3%) agreed that they were religious, while 31(9.7%) indicated that they were not religious. This information is further reflected in their mean score for religiosity.

Inferential statistics requires adequate sample size and power analysis to determine significance. Consequently, these factors (power, effect size, significance level and analysis type) were put into consideration during the study's design. The estimated sample size was achieved using the G*power software (v3.1.9.7) with a linear multiple regression fixed model and an R^2 deviation of zero fixed at A-priori. A minimum sample of 119 participants for the model, based on a medium effect size of .15, a .05 alpha level, and power fixed at .95. The generated sample size was sufficient to determine statistical power. However, a larger sample size is often recommended to help reduce non-response bias.

Procedure

The research adhered to the most recent information in the Helsinki Declaration for studies involving human participants. The Psychology Department's Research Ethics Committee (Delta State University, Abraka) gave its approval for this study. The approval for the study was given on June 04, 2024, with reference number 0001833. A protocol was developed, incorporating questions about the sociodemographic characteristics of the participants, instruments, and informed consent. The informed consent contained a description of the theme and general purpose of the study, as well as the statement that participation was entirely voluntary. The participants were guaranteed the privacy and confidentiality of their data. A few inclusion criteria were established to guide the sampling process: participants must be enrolled in a full-time degree program, be in one of the recognized levels outlined by the Delta State University Council, be enrolled in one of the faculties situated in the Abraka campus, and have provided verbal consent indicating their willingness to participate in the study. Therefore, participation was limited to those who met these requirements.

Participants with a significant number of missing responses were excluded in the final analysis. The faculties in the Abraka campus were selected using a simple random sampling technique while convenience sampling was used to select students

who met the inclusion criteria. A few procedures were put in place to reduce the levels of method bias. These include making certain that the criterion variable was presented before the predictor variables, ensuring that participants know that their data are kept private and confidential, and making sure the questionnaire's items are easily understood and legible (Kaltsonoudi et al., 2022). A selected group of third-year psychology students were trained to serve as research assistants during the data collection process. These students, under supervision, were randomly assigned to distribute the questionnaires to the selected faculties. The questionnaire took approximately ten to twelve minutes to complete.

Measurement

The participants' socio-demographics such as gender, age, marital status, faculty, level of study, and exposure to mental health problems were collected in the first section of the questionnaire. The second section contains the instruments used for measuring the main variables being examined.

Psychological Help-Seeking Attitudes: This scale was developed by Fischer and Turner (1995) and is theoretically predicated on the concept of PHSA. It is a 10-item scale used to assess people's attitudes toward getting psychological assistance. The scale describes the significant aspect of PHSA which includes openness to seeking treatment (measured with five items, e.g., If I believe I was having a mental breakdown, my first inclination would be to get professional attention) and value and need to seek treatment (measured with five items, e.g., The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflict). The 10-item scale with relatively two independent factors was developed from the original 29-item multidimensional measure developed by Fischer and Turner (1970). To develop the 10-item version of the scale, the highest item-total score correlations from 14 of the original 29 items were used. A 5-point Likert scale ranging from strongly agree to strongly disagree was used in this study. The scale was used in its original form and was only adapted where necessary to suit the research context. The total score that is achieved varies from 1 to 50, where higher values correspond to more optimistic views toward seeking psychological assistance. Torres et al. (2021) reported an internal consistency of .70 for the scale across English and Spanish samples.

Mental Health Literacy: This was measured using the knowledge of mental health problems subscale of the MHL scale developed by Dias et al. (2018) and further validated by Campos et al. (2022). It is a six-item scale that assesses an individual's knowledge about mental health problems. The other dimensions were not considered, as some of the items overlap with the variables included in the current study. Therefore, the researcher was only interested in participants' knowledge of mental health problems and how this knowledge affects their willingness to seek professional

psychological assistance. Sample items on the scale include “mental disorders affect people’s thoughts” and “highly stressful situations may cause mental disorders”. The scale was anchored on a 5-point response format with 1 being “strongly disagree” to 5 being “strongly agree”. The overall score for each participant represents their level of MHL. The scores for the 6-item scale ranged from 1-30, where higher values are associated with higher MHL. The scale produced satisfactory internal consistency values from .66 to .83 (Campos et al., 2022; Dias et al., 2018).

Distress Disclosure: This was measured with the disclosure of distress index developed by Kahn and Hessling (2001). The developers proposed that individual variances in the propensity to hide or reveal psychological distress were indicative of a unidimensional construct linked to modifications in psychological adjustment. The DD scale is a 12-item scale developed using content domains such as type of distress, audience, proactive, and reactive disclosure. Sample items on the scale include “when I feel upset, I usually confide in my friends” and “I prefer not to talk about my problem”. All negative worded items were reverse-coded as instructed in the original development. The Scale was based on a response structure with five points (1 = strongly disagree to 5 = strongly agree). The scores ranged from 1 to 60. The total score for each participant reflects their degree of DD, with higher values indicating higher levels of DD. The scale demonstrated an excellent internal consistency of .94, indicating it is a reliable tool for assessing DD among undergraduate students.

Religiosity: This was measured with the religious commitment inventory developed by Worthington et al. (2003). It is a 10-item scale that measures people’s levels of commitment and devotion to their chosen religious affiliation. The scale comprises two dimensions: intrapersonal religious commitment (measured with six items, e.g., I spend time trying to grow in understanding of my faith) and interpersonal religious commitment (measured with four items, e.g., I make financial contributions to my religious organisation). The scale uses a five-point Likert rating style ranging from 1 being “not at all true of me” to 5 being “totally true of me”. The scores ranged from 1 to 50, where higher scores indicate higher levels of religiosity. The scale demonstrated a good internal consistency estimate of .88 in a sample of college students.

Design and Statistics

A cross-sectional research design was used in this study. The zero-order correlation of the study’s focal construct, internal consistency estimates (Cronbach’s alphas and McDonald’s omega), and normality test (via skewness and kurtosis) were examined. Simple regression analysis was used to explore the direct relationships, while multiple regression was carried out to check the contributions of each predictor to PHSA. Model 4 of the PROCESS plug-in tool was used for testing the mediation, while Model 14 was used for testing the moderation and moderated mediation. To determine 95% confidence

intervals (CIs), bootstrapping was used to evaluate the mediation, moderation, and moderated mediation hypotheses by a resampling of 5000 samples. Results were considered statistically significant if the 95% CI did not contain zero and the p-value was less than 0.05. Data analysis was carried out with the IBM-SPSS Statistics v25 and further complemented with Hayes' PROCESS Macro v4.2.

Control Variables

Research has shown that factors such as gender, age, marital status, educational level, and exposure to mental health problems are associated with PHSA (Baklola et al., 2023; Çakar, 2015; Güney et al., 2024; King et al., 2023), MHL (Dopmeier et al., 2020), DD (Dopmeier et al., 2020; Rafal et al., 2018), and religiosity (O'Brien et al., 2019). To address potential bias of these factors in the model, the socio-demographics of the participants (gender, age, marital status, faculty, level of study, and exposure to mental health problems) were included as control variables. Similar studies in the literature have also adopted gender and age as covariates (O'Brien et al., 2019; Yang et al., 2023).

Results

Assessment of the Measurement Model

Common method variance (CMV) was evaluated using the correlation matrix technique and Herman's single-factor test. The analysis' findings fell within reasonable limits. The test findings showed that the first component explained 18.323% of the variation. The results show that up to 50% of the overall variation cannot be explained by the first element, indicating that CMV is not an issue in the dataset. The instruments used for data collection were evaluated for reliability and validity. Internal consistency measures for reliability, such as Cronbach's α and composite reliability (CR) were used. The values were within the acceptable range, $> .70$, indicating that the scales are reliable (Hair et al., 2020; Karimi et al., 2020). The satisfactory Cronbach's α supported convergent validity (Zaman et al., 2021). The average variance extracted (AVE) and the convergent validity coefficient (i.e., CR) were used to examine statistical evidence of convergent validity.

Discriminant validity was evaluated through the square root of average variance extracted, as seen in Table 2. Acceptable convergent validity requires the CR values to be $\geq .70$ (Yu et al., 2024; Wu et al., 2022). The square roots of AVE were above the correlation values, indicating the presence of discriminant validity (Fronell & Larcker, 1981). AVE should be $> .5$ for every construct. However, the values below this threshold are acceptable if the composite reliability is $> .6$, which is the case for all the constructs (Fronell & Larcker, 1981). The values for skewness and kurtosis were between -1.06 and +1.24, indicating that the data is normally distributed. This

is sufficient for a sample size of 200 and above (Demir, 2022; Hair et al., 2020). The tolerance ($>.40$), VIF (<10), and Durbin-Watson (1.97) were all within the acceptable range, suggesting the absence of multicollinearity (Field, 2018).

Table 1.
Reliability, Average Variance Extracted (AVE), Normality, Variance Inflation Factor (VIF), and Tolerance level

	<i>Items</i>	<i>Cronbach's α</i>	<i>McDonald's ω</i>	<i>CR</i>	<i>AVE</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>VIF</i>	<i>Tolerance</i>
MHL	6	.808	.811	.863	.515	-1.06	1.24	1.074	.931
DD	12	.901	.902	.917	.481	-.129	-.553	1.064	.940
Religiosity	10	.881	.882	.904	.486	-.165	-.552	1.011	.990
PHSA	10	.755	.769	.821	.344	-.370	.056	--	--

Note: MHL = mental health literacy; DD = distress disclosure; PHSA = psychological help-seeking attitudes; CR = composite reliability; AVE = average variance extracted; Durbin-watson (DW) = 1.97

Descriptive Statistics

The mean and standard deviation were at moderate levels. Consistent with the proposed relationship, the correlational analysis showed that MHL is positively correlated with PHSA ($r = .403, p < .01$), thus indicating that an increase in MHL scores is associated with an increase in the scores for PHSA. From the values in Table 2, MHL positively correlates with DD ($r = .245, p < .01$), with the statistics showing that an increase in the scores for MHL necessitates an increase in the scores for PHSA. Also, DD was positively associated with PHSA ($r = .460, p < .01$), indicating that an increase in the scores for DD leads to an increase in scores for PHSA. Religiosity showed a positive attribute but was not significantly related to the other construct. Since all of the variables had moderate correlation values $< .80$ and were positively and strongly intercorrelated, there were no multicollinearity issues in the data. This benchmark also supports the correlation matrix technique employed to assess method variance (Tehseen et al., 2017). Evidence of the discriminant validity of the constructs was provided through the square root of the average variance extracted (AVE). These values, bolded along the diagonal in Table 2, were greater than all the correlation matrix values, establishing the presence of discriminant validity in the measurement model (Fronell & Larcker, 1981; Hair et al., 2020).

Table 2.
Mean, Standard Deviation, Correlational Coefficients and Squared Root of AVE of the Constructs

	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1 Mental Health Literacy	3.821	.773	.717			
2 Distress Disclosure	2.855	.889	.245**	.693		
3 Religiosity	3.110	.913	.102	.026	.697	
4 Psychological Help-Seeking Attitudes	3.251	.678	.403**	.460**	.084	.586

Note: ** $< .01$. The bolded diagonal values indicate the square root of AVE.

Testing the Direct, Indirect, Moderation, and Moderated Mediation Effects

The predictive relationships among MHL, DD, and PHSA are shown in Table 3. The statistics supported hypotheses 1, 2, and 3. For hypothesis 1, MHL strongly predicted PHSA ($\beta = .403$, 95% CI [.264, .442], $t = 7.842$, $p < .01$). According to the statistical indices, there is a .403 rise in PHSA for every unit increase in MHL. The R^2 statistics indicate that MHL accounts for a 16.2% variance in PHSA. The analysis of variance (ANOVA) statistics, $F(1,318) = 61.501$, $p < .01$, was statistically significant, hence indicating that PHSA can be predicted from MHL. The robust cross-validation resulted from the marginal difference between R^2 and *adjusted* R^2 , which indicates that the sample may apply to comparable population samples. Hypothesis 1 (H_1) was accepted.

Results indicate that MHL positively and significantly predicts DD ($\beta = .245$, 95% CI [.158, .405], $t = 4.497$, $p < .01$). The statistical indices reveal that a one-unit increase in MHL leads to a .245 increase in DD. The R^2 statistics indicate that MHL accounts for a 6% variance in DD. The values for ANOVA statistics, $F(1,318) = 20.223$, $p < .01$, showed a significant regression, indicating that DD can be predicted from MHL. The model may be applied to comparable population samples, as evidenced by the tiny difference between R^2 and *adjusted* R^2 , which points to a robust cross-validation. Hypothesis 2 (H_2) was accepted.

The results further indicate that DD positively and significantly predicts PHSA ($\beta = .460$, 95% CI [.247, .425], $t = 9.247$, $p < .01$). The statistical indices indicate that a one-unit increase in DD leads to a .460 increase in PHSA. The R^2 statistics indicate that DD accounts for a 21.2% variance in PHSA. The ANOVA statistics, $F(1,318) = 85.499$, $p < .01$, was statistically significant, indicating that DD can be predicted from MHL. Hypothesis 3 (H_3) was accepted. The small difference between R^2 and *adjusted* R^2 suggests a strong cross-validation, showing that the model can be applied to similar population samples.

Table 3.
Simple regression analysis on the predictive relationship among MHL, DD and PHSA

	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>	95% Confidence Interval		R^2	<i>F</i>
						Lower Limit	Upper Limit		
Constant	1.902	.176		10.838	.001	1.557	2.247		
MHL → PHSA	.353	.045	.403	7.842	.001	.264	.442	.162	61.501
Constant	1.780	.244		7.297	.001	1.300	2.260		
MHL → DD	.281	.063	.245	4.497	.001	.158	.405	.060	20.223
Constant	2.250	.113		19.839	.001	2.026	2.473		
DD → PHSA	.351	.038	.460	9.247	.001	.247	.425	.212	85.499

Note: MHL = mental health literacy; DD = distress disclosure; PHSA = psychological help-seeking attitudes

The multiple regression analysis model was significant and indicated that MHL, DD, and Religiosity have a combined R^2 of .297 and R of 0.303. The later data show that the three variables, MHL, DD, and Religiosity, account for more than a quarter

of the variance in PHSA (explaining 29.7% of the variance), with semi-partial correlation indices of .293, .373, and .043, respectively. Thus, DD explained more variance in PHSA than MHL and Religiosity.

Table 4.

Statistical output for the indirect effect of MHL on PHSA through DD

Mediational paths	a	b	c'	a*b	95% CI of a*b	c	se
MHL → DD → PHSA	.229	.394	.309	.090	[.044, .137]**	.350	.046

Note. ** < .01; c' = direct effect; a*b = indirect effect; c = total effect

The result of the indirect effect of DD is shown in Table 4. After controlling for gender, age, marital status, educational level, and exposure to mental health problems in the mediation model, an indirect effect of DD on the relationship between MHL and PHSA was found. The results indicate that MHL has a significant indirect effect on PHSA through DD, $\beta = 0.090$, 95% CI [.044, .137]. The absence of zero value in the confidence interval statistics indicates a significant indirect effect. The result was consistent with a partial mediation; the 5000 bootstrap estimated samples revealed that both the total effect ($\beta = .350$, 95% CI [.258, .442], $p < .01$) and direct effect ($\beta = .309$, 95% CI [.185, .356], $p < .01$) were statistically significant. Hypothesis 4 (H_4) was supported.

Table 5.

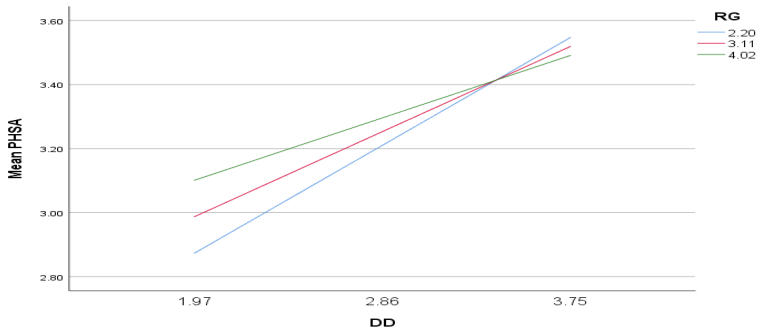
Summary of results for the moderated mediation model

Psychological Help-Seeking Attitudes					
Predictors	B	SE	LLCI	ULCI	P
Religiosity	.296	.112	.074	.517	.009
Distress Disclosure x Religiosity	-.087	.037	-.160	-.014	.019
Conditional Indirect Effect(s) of MHL on PHSA at values of the moderator(s)					
Religiosity	Effect	SE	LLCI	ULCI	
-1 Standard Deviation – Low	.099	.027	.048	.155	
Mean – Moderate	.078	.022	.035	.124	
+1 Standard Deviation – High	.057	.021	.021	.102	
Index of Moderated Mediation					
	Effect	SE	LLCI	ULCI	
Religiosity	-.023	.012	-.048	-.001	

Note: SE = standard error of bootstrap samples (5000); CI = confidence interval; LL = lower limit; UL = upper limit

The results in Table 5 showed that after controlling for gender, age, marital status, educational level, and exposure to mental health problems in the moderated mediation model, religiosity negatively moderates the DD-PHSA relationship value ($\beta = -.087$, 95% CI [-.160, -.019]). The interaction effect was significantly different from zero at -1 SD ($\beta = .378$, 95% CI [.281, .475]), at the mean value ($\beta = .298$, 95% CI [.226, .370]), and +1 SD ($\beta = .219$, 95% CI [.119, .318]). The different levels indicate that as religiosity decreases so does the strength of the positive relationship between DD and PHSA, leading to the acceptance of hypothesis 5 (H_5).

Figure 2.
Interaction graph of DD and religiosity (RG) on PHSA



The moderated mediation model was supported; religiosity negatively moderated the indirect effect of MHL on PHSA by moderating the impact of DD on PHSA ($\beta = -.023$, $SE = .012$, 95% CI $[-.048, -.001]$). Three specific values of religiosity showed the conditional indirect effect of MHL on PHSA through DD: -1 SD (2.196 = low mean value), the mean (3.110 = mean value), and $+1$ SD (4.024 = high mean value). The indirect effect was significantly different from zero at -1 SD ($\beta = .099$, 95% CI $[.048, .155]$), at the mean value ($\beta = .078$, 95% CI $[.035, .124]$), and $+1$ SD ($\beta = .057$, 95% CI $[.021, .102]$). Moreover, the results demonstrate that the positive impact of MHL on PHSA through DD decreases when religiosity increases and increases when religiosity decreases. Hypothesis 6 (H_6) was accepted.

Discussion

In this study, the researcher investigated the effect of MHL and DD on PHSA. The study also explored a complex moderated mediation model of DD and religiosity on the relationship between MHL and PHSA. The socio-demographic characteristics reveal that a significant number of the students sampled for the study said that they have been exposed to mental health problems either through taking care of a relative with mental health challenges or through facing personal mental health challenges. This led to controlling for these factors to partial out their effect on the final hypothesised results. The regression model (moderated mediation) allowed for the testing of six hypotheses. The first hypothesis (H_1), which stated that MHL will positively and significantly predict PHSA, was supported. This indicates that an increase in MHL necessitates an increase in PHSA. According to the theory of planned behaviour, MHL may provide some form of control over seeking psychological assistance, this control can improve the intention to seek professional psychological help (Song & Park, 2015).

This result is consistent with the extant literature demonstrating that MHL impacts mental health dispositions (Rafal et al., 2018; Yang et al., 2023). Lack of knowledge

about mental health was found to be a major barrier to developing positive views about seeking professional psychological help. The result of the first hypothesis is supported by many other studies that have found a strong and positive correlation between young people's attitudes toward seeking professional psychological help and their knowledge of mental health (Baklola et al., 2024; Fazlifar et al., 2024; Kantaş Yılmaz & Ünkür, 2023; Zheng et al., 2023).

The second hypothesis (H_2) was also supported, as the results indicated that MHL is a significant predictor of DD. Therefore, an increase in MHL will lead to an increase in DD. This result supports the notion that individuals with knowledge of mental health issues are more inclined to disclose their distress or mental health problems to others. Students can feel more in control, be more effective, and disclose their discomfort when they are knowledgeable about mental health (Yang et al., 2023). This result is supported by previous empirical studies showing a significant correlation between having an adequate understanding of mental health and DD (e.g., Schlechter et al., 2021; Traynor et al., 2024; Yang et al., 2023).

Accordingly, the third hypothesis (H_3) was also supported, showing that DD positively predict PHSA. This outcome supports the idea that students who are comfortable confiding in others are more inclined to seek out professional psychological services (Schlechter et al., 2021; Yang et al., 2023). The results of the first three hypotheses supported the mediational paths. The mediational analysis showed that DD mediates the relationship between MHL and PHSA. Hence, hypothesis four (H_4) was supported. DD mediates the MHL and PHSA relationship by creating a connection between the two. This shows that students' knowledge and understanding of mental health issues make it possible for them to disclose their feelings, which in turn promotes favourable PHSA. Wang et al. (2023) found that DD mediates the link between trait rumination (negative experiences) and post-stress growth thus empirically supporting hypothesis four.

The results of hypothesis five (H_5) showed that religiosity acts as a negative moderator in the paths between DD and PHSA, such that higher religiosity decreases the possibility of favourable PHSA, while lower religiosity increases favourable PHSA. High religiosity may lead to a sense of dependence on the supernatural and the use of religious coping (through beliefs and strategies), where all that occurs in a person's life is perceived as divine. While religious coping can have a positive impact on mental health (O'Brien et al., 2019), it can negatively impact PHSA (Moreno & Cardemil, 2018; Moreno et al., 2017). Young people who are highly religious may turn to spiritual leaders, the majority of whom are not trained in mental health-related matters. Lastly, hypothesis six (H_6), which stated that religiosity moderates the indirect effect of MHL on PHSA via the incorporation of DD as mediator, was supported as a negative index of moderated mediation was found. In essence, religiosity negatively moderates the indirect effect of MHL on PHSA through DD.

Implications for Mental Health Professionals

This research was carried out to examine the relationship between MHL and PHSA in a moderated mediation model involving DD and religiosity in a sample of university undergraduates. The study highlights the roles of MHL, DD, and religiosity in university students' attitudes toward seeking professional psychological help. Mental health professionals who interact with college students can benefit greatly from a greater understanding of the variables linked to PHSA. Based on the findings presented (outlined in the study's objectives and supported by the theoretical framework), the following recommendations were drawn up to shed more light on implementing policies that will improve mental health awareness and positive attitudes towards help-seeking among young people.

Undergraduates' favourable views toward obtaining professional psychological assistance and their ability to recognise the signs of mental health problems may be significantly impacted by MHL. Psychologists and counsellors on college campuses might enhance MHL by conducting outreach programs that educate people about the signs of mental health conditions, the value of early identification, how to disclose concerns, and how to get psychological assistance (Boville et al., 2022). Therefore, university campaigns can normalise the practice of obtaining professional psychological assistance by inviting speakers who can talk about the elements that either encourage or discourage help-seeking behaviours. These outreach programs can help shift young people's reliance on religion as the sole solution for mental health conditions, encouraging them to engage more with trained mental health experts. Psychologists and counsellors need to demystify the therapeutic and counselling process and frame seeking psychological help as a strength. Additionally, implementing mental health education in the university curricula may contribute to a rise in mental health literacy and a reduction in the stigma associated with asking for professional psychological assistance (Sokolova, 2024).

Limitations and Future Research Directions

The study has certain limitations. First, a notable constraint concerns the method of data collection, which was solely based on self-reporting of behaviours. Self-report measures can sometimes introduce recall bias in response to items measuring MHL, DD, religiosity, and PHSA. Social desirability might have led to respondent bias. Even though the study's design incorporated procedural control and statistical checks for CMV, controlling for socially desirable responses in a survey-based study is always difficult. Second, the research sample came from the Delta State University campus in Abraka, Nigeria. Therefore, the data has certain geographic constraints. The results might not have been as broadly applicable, given that the students were chosen from a specific area.

Third, the participants utilised for the study were all young people and Christians, making it difficult to use these findings to make inferences about the professional PHSA of young and older people from other religious backgrounds. Future studies may contribute to the generalisation of the findings by adopting both young and older individuals from diverse cultural and religious backgrounds. Therefore, exploring whether similar results persist or whether differences emerge across other groups (based on culture and religion) might provide vital information for research in the future.

Additionally, the nexus between MHL and PHSA in a moderated mediation model of DD and religiosity was examined using a cross-sectional design and a quantitative approach (questionnaires) for data collection. Cross-sectional data cannot validate important temporal linkages in the help-seeking process or establish the causality of relationships between variables. The results should be repeated and expanded upon in subsequent research using mixed-methods or qualitative approaches. The use of a mixed method is becoming increasingly popular in the literature. This study suggests that future researchers investigate the mediating pathways and interactions among the variables analysed in this study using qualitative methods.

Future studies can adopt recent qualitative methods such as Online Photovoice (OPV; Tanhan & Stract, 2020), Online Interpretative Phenomenological Analysis (OIPA; O'Malley et al., 2024), and Community-Based Participatory Research (CBPR; Dari et al., 2023). Hence, data on similar studies can be collected through interviews with participants using the OPV method to evaluate direct and indirect relationships among the variables related to attitudes toward seeking psychological help. OPV gives opportunities to the participants to express their own experiences with as little manipulation as possible, if at all, compared to traditional quantitative methods (Ünsal Seydoogulları, 2023; Waalkes et al., 2024). Future research can use OPV, OIPA, and CBPR to explore the diverse mechanisms underlying the relationship between MHL and PHSA and their impact on young people.

Conclusion

The outcome of the present study bears significant importance to the literature as a valuable addition to understanding the connection between MHL and PHSA through the complex moderated mediation model involving DD and religiosity. The implications of these findings for mental health interventions in higher education settings are significant, and they bring to light potential obstacles to professional psychological assistance, such as young people's religious convictions, which can sometimes impede the need for psychological care. Hence, professionals have to make highly religious individuals see the need for professional psychological help. To support meaningful participation, policymakers, educational administrators, and associations of professional psychologists and counsellors must ensure that young

people have access to training on mental health and are offered opportunities to raise awareness in schools and communities. This training will improve MHL, which will in turn promote DD and PHSA.

Acknowledgement. I would like to extend my heartfelt gratitude to the anonymous reviewers and the editorial team for their invaluable feedback and unwavering support throughout the review and publication process. Their constructive suggestions and guidance were instrumental in enhancing the quality of this work. I would also like to acknowledge the efforts of the 300-level psychology students (2023/2024 academic session) who assisted in collecting data for this research. Their dedication, hard work, and attention to detail were invaluable in the successful completion of this study.

Ethical approval. All study procedures involving human participants followed institutional research committee ethical standards and the 1964 Helsinki declaration and its later amendment or comparable ethical standards. Ethical

approval was also received from the Psychology Committee on Research Ethics, Department of Psychology, Delta State University, Abraka, Nigeria.

Peer-review. This research was rigorously evaluated by two or more experts in the field, and the study was refined based on their recommendations.

Funding. The author received no financial support for the research, authorship, and /or publication of this article.

Disclosure statement. The author declared no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

Data availability statement. Available upon reasonable request from the author.

References

- Africa Polling Institute and EpiAFRIC (2019). Mental Health in Nigeria Survey. Retrieved from <https://nigeriahealthwatch.com/wp-content/uploads/bsk-pdf-manager/2020/01/MENTAL-HEALTH-IN-NIGERIA-SURVEY-Conducted-by-Africa-Polling-Institute-and-EpiAFRIC-January-2020-REPORT.pdf>
- Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In J Kuhi & J. Beckmann (Eds.), *Action-control: From cognition to behaviour* (pp. 11-39). Heidelberg: Springer.
- Ajzen, I. (2006) Constructing a theory of planned behaviour questionnaire: Conceptual and methodological consideration. Retrieved from <http://www.people.umass.edu/aizen/tpb.measurement.pdf>.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. (1st ed.). New Jersey: Prentice-Hall.

- Al-Shaer, E. A., Aliedan, M. M., Zayed, M. A., Elrayah, M., & Moustafa, M. A. (2024). Mental health and quality of life among university students with disabilities: The moderating role of religiosity and social connectedness. *Sustainability (Switzerland)*, 16(2). <https://doi.org/10.3390/su16020644>
- Aluh, D. O., Anyachebelu, O. C., Anosike, C., & Anizoba, E. L. (2018). Mental health literacy: What do Nigerian adolescents know about depression? *International Journal of Mental Health Systems*, 12(1). <https://doi.org/10.1186/s13033-018-0186-2>
- Aluh, D. O., Okonta, M. J., & Odili, V. U. (2019). Cross-sectional survey of mental health literacy among undergraduate students of the University of Nigeria. *BMJ Open*, 9(9). <https://doi.org/10.1136/bmjopen-2019-028913>
- Aminnuddin, N. A. (2019). Predicting Islamic ethical work behaviour using the theory of planned behaviour and religiosity in Brunei. *Journal of Behavioural Science*, 14(1), 1–13. Retrieved from https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://philarchive.org/archive/AMIPIE&ved=2ahUKEwj2_timiOWGAxUuTqQEHa74B3oQFnoECA0QAQ&usq=AOvVaw3NMYLBTGVHul8lvlusFkpQ
- Aras, E., & Peker, A. (2024). Adolescents' attitudes and intention to seek psychological help according to the theory of planned behaviour. *Psikiyatride Güncel Yaklaşımlar*, 16(4), 617–627. <https://doi.org/10.18863/pgy.1371163>
- Baklola, M., Terra, M., Elzayat, M. A., Abdelhady, D., & El-Gilany, A. H. (2023). Pattern, barriers, and predictors of mental health care utilisation among Egyptian undergraduates: a cross-sectional multi-centre study. *BMC Psychiatry*, 23(1). <https://doi.org/10.1186/s12888-023-04624-z>
- Baklola, M., Terra, M., Taha, A., Elnemr, M., Yaseen, M., Maher, A., Buzaid, A. H., Alenazi, R., Osman Mohamed, S. A., Abdelhady, D., & El-Gilany, A. H. (2024). Mental health literacy and help-seeking behaviour among Egyptian undergraduates: A cross-sectional national study. *BMC Psychiatry*, 24(1). <https://doi.org/10.1186/s12888-024-05620-7>
- Boville, C., Simpson, R., Dartnell, J., West, C., Naikpanvelkar, P., Warwar, S., Usherwood, T., & Hains, I. (2022). Designing a national education programme to bridge gaps in practice and empower youth to safely manage their mental health. *Australian and New Zealand Journal of Psychiatry*, 56(1), 184. Retrieved from <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emed23&NEWS=N&AN=638326912>
- Brown, J. S. L., Evans-Lacko, S., Aschan, L., Henderson, M. J., Hatch, S. L., & Hotopf, M. (2014). Seeking informal and formal help for mental health problems in the community: A secondary analysis from a psychiatric morbidity survey in South London. *BMC Psychiatry*, 14(1), 1–15. <https://doi.org/10.1186/s12888-014-0275-y>
- Bu, L., Chen, X., Zheng, S., & Fan, G. (2023). Construction of the structural equation model of stigma, self-disclosure, social support, and quality of life of breast cancer patients after surgery—a multicenter study. *Frontiers in Oncology*, 13. <https://doi.org/10.3389/fonc.2023.1142728>
- Çakar, F. (2015). The role of social support, subjective well-being, and gender on psychological help-seeking among Turkish adolescents. *British Journal of Education, Society & Behavioural Science*, 9(1), 1–10. <https://doi.org/10.9734/bjesbs/2015/17775>
- Campos, L., Dias, P., Costa, M., Rabin, L., Miles, R., Lestari, S., Feraihan, R., Pant, N., Sriwichai, N., Boonchieng, W., & Yu, L. (2022). Mental health literacy questionnaire-short version for adults (MHLq-SVa): Validation study in China, India, Indonesia, Portugal, Thailand, and the United States. *BMC Psychiatry*, 22(1). <https://doi.org/10.1186/s12888-022-04308-0>
- Coates, D., & Winston, T. (1987). The dilemma of distress disclosure. In self-disclosure (pp. 229–255). Springer US. https://doi.org/10.1007/978-1-4899-3523-6_11

- Cotton, S., Zebracki, K., Rosenthal, S. L., Tsevat, J., & Drotar, D. (2006). Religion/spirituality and adolescent health outcomes: A review. *Journal of Adolescent Health, 38*(4), 472–480. <https://doi.org/10.1016/j.jadohealth.2005.10.005>
- Dari, T., Fox, C., Laux, J. M., & Speedlin Gonzalez, S. (2023). The development and validation of the Community-Based Participatory Research Knowledge Self-Assessment Scale (CBPR-KSAS): A Rasch analysis. *Measurement and Evaluation in Counselling and Development, 56*(1), 64–79. <https://doi.org/10.1080/07481756.2022.2034478>
- Demir, S. (2022). Comparison of normality tests in terms of sample sizes under different skewness and kurtosis coefficients. *International Journal of Assessment Tools in Education, 9*(2), 397–409. <https://doi.org/10.21449/ijate.1101295>
- Dias, P., Campos, L., Almeida, H., & Palha, F. (2018). Mental health literacy in young adults: Adaptation and psychometric properties of the mental health literacy questionnaire. *International Journal of Environmental Research and Public Health, 15*(7). <https://doi.org/10.3390/ijerph15071318>
- Dopmeier, J. M., de Jonge, J. M., Visscher, T. L., Bovens, R. H., & Wiers, R. W. (2020). Predicting disclosure and help-seeking in university students with psychosocial problems based on stigma and attitudes towards disclosure and help-seeking. *Mental Health and Addiction Research, 5*(2). <https://doi.org/10.15761/mhar.1000193>
- Duran, S., & Ergün, Ş. (2023). Correlation between mental health literacy levels and attitudes of seeking psychological help of health services vocational school students: Descriptive cross-sectional research. *Journal of Higher Education and Science, 13*(2), 272–279. <https://doi.org/10.5961/higheredusci.1193184>
- Fazlifar, K., Modanloo, S., Aghaei, N., & Nikbakht, R. (2024). The relationship between mental health literacy and attitude towards seeking professional psychological help in adolescents. *Journal of Mazandaran University of Medical Sciences, 33*(230), 85–89. Retrieved from <https://jmums.mazums.ac.ir/article-1-20426-en.html>
- Fekih-Romdhane, F., Daher-Nashif, S., Stambouli, M., Alhuwailah, A., Helmy, M., Shuwiekh, H. A. M., Lemine, C. M. F. M., Radwan, E., Saquib, J., Saquib, N., Fawaz, M., Zarroug, B., Nasser, A. Y., Obeid, S., Salah, M., Haider, S., Miloud, L., Badrasawi, M., Hamdan-Mansour, A., ... Hallit, S. (2023). Mental illness stigma as a moderator in the relationship between religiosity and help-seeking attitudes among Muslims from 16 Arab countries. *BMC Public Health, 23*(1). <https://doi.org/10.1186/s12889-023-16622-7>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Thousand Oaks, California: SAGE Publications.
- Fischer, E. H., & Farina, A. (1995). Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development, 36*(4), 368–373. Retrieved from <http://psycnet.apa.org/psycinfo/1996-10056-001>
- Fischer, E. H., & Turner, J. I. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology, 35*(1), 79–90. <https://doi.org/10.1037/h0029636>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Garssen, B., Visser, A., & Pool, G. (2021). Does spirituality or religion positively affect mental health? Meta-analysis of longitudinal studies. *International Journal for the Psychology of Religion, 31*(1), 4–20. <https://doi.org/10.1080/10508619.2020.1729570>

- Gregory, C., Pomerantz, A. M., Pettibone, J. C., & Segrist, D. J. (2008). The effect of psychologists' disclosure of personal religious background on prospective clients. *Mental Health, Religion and Culture*, 11(4), 369–373. <https://doi.org/10.1080/13674670701438739>
- Güney, E., Aydemir, A. F., Iyit, N., & Alkan, Ö. (2024). Gender differences in psychological help-seeking attitudes: a case in Türkiye. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1289435>
- Hair, J. F., Page, M., & Brunsveld, N. (2020). *Essentials of business research methods* (4th ed.). Routledge. <https://doi.org/10.4324/9780429203374>
- Healthy People (2020). Mental health and mental disorders. Retrieved from <https://www.healthypeople.gov/2020/topics-Objectives/topic/mental-health-and-mental-disorders>.
- Hlongwane, N., & Juby, V. (2023). Knowledge, attitudes, and help-seeking behaviour for mental illness in a Christian community. *South African Journal of Psychiatry*, 29. <https://doi.org/10.4102/sajpsychiatry.v29i0.2139>
- Iannello, N. M., Hardy, S. A., Musso, P., Coco, A. L., & Inguglia, C. (2019). Spirituality and ethnocultural empathy among Italian adolescents: The mediating role of religious identity formation processes. *Psychology of Religion and Spirituality*, 11(1), 32–41. <https://doi.org/10.1037/rel0000155>
- Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). “Mental health literacy”: A survey of the public’s ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical Journal of Australia*, 166(4), 182–186. <https://doi.org/10.5694/j.1326-5377.1997.tb140071.x>
- Kahn, J. H., & Hessling, R. M. (2001). Measuring the tendency to conceal versus disclose psychological distress. *Journal of Social and Clinical Psychology*, 20(1), 41–65. <https://doi.org/10.1521/jscp.20.1.41.22254>
- Kaltsonoudi, K., Tsigilis, N., & Karteroliotis, K. (2022). Common method bias in research designs using self-report tools: Literature overview and recommended remedies. *Psychology*, 27(1), 210–231. <https://doi.org/10.12681/psychps.30843>
- Kantaş Yilmaz, F., & Ünkür, P. (2023). Determination of mental health literacy, help-seeking behaviours and psychological distress levels of health science students mental health. *Journal of Health Literacy*, 7(4), 9–20. <https://doi.org/10.22038/jhl.2022.66098.1308>
- Karimi, R., Zawawi, D., & Krauss, S. E. (2020). The antecedent and consequence of emotional labour among front-line employees in Malaysian hotels. *International Journal of Academic Research in Business and Social Sciences*, 10(16), 317-331. <https://doi.org/10.6007/IJARBS/v10-i16/8315>
- Keum, B. T. H., Oliffe, J. L., Rice, S. M., Kealy, D., Seidler, Z. E., Cox, D. W., Levant R. F., & Ogrodniczuk, J. S. (2023). Distress disclosure and psychological distress among men: The role of feeling understood and loneliness. *Current Psychology*, 42(13), 10533–10542. <https://doi.org/10.1007/s12144-021-02163-y>
- King, L., Cullen, S., McArdle, J., McGoldrick, A., Pugh, J., Warrington, G., & Losty, C. (2023). Barriers and facilitators to help-seeking for mental health difficulties among professional jockeys in Ireland. *Journal of Clinical Sport Psychology*, 17(2), 189–209. <https://doi.org/10.1123/jcsp.2021-0032>
- Kutcher, S., Bagnell, A., & Wei, Y. (2015). Mental health literacy in secondary schools. A Canadian approach. *Child and Adolescent Psychiatric Clinics of North America*. W.B. Saunders. <https://doi.org/10.1016/j.chc.2014.11.007>

- Kutcher, S., Wei, Y., & Coniglio, C. (2016). Mental health literacy: Past, present, and future. *Canadian Journal of Psychiatry*. SAGE Publications Inc. <https://doi.org/10.1177/0706743715616609>
- Labinjo, T., Serrant, L., Ashmore, R., & Turner, J. (2021). Perceptions, attitudes and cultural understandings of mental health in Nigeria: A scoping review of published literature. *Mental Health, Religion and Culture*, 23(7), 606–624. <https://doi.org/10.1080/13674676.2020.1726883>
- Lawal, S. A., Adedeji, I. A., Ogunniyi, A., & Henderson, D. (2024). Social domains of poor mental health: A qualitative pilot study of community stakeholders' understanding and demarcation of mental illness and its interpretations in rural Nigeria. *Health Science Reports*, 7(2). <https://doi.org/10.1002/hsr2.1922>
- Lee, J. E., Goh, M. L., & Yeo, S. F. (2023). Mental health awareness of secondary school students: Mediating roles of knowledge on mental health, knowledge on professional help, and attitude towards mental health. *Heliyon*, 9(3). <https://doi.org/10.1016/j.heliyon.2023.e14512>
- Li, W., Denson, L. A., & Dorstyn, D. S. (2018). Understanding Australian university students' mental health help-seeking: An empirical and theoretical investigation. *Australian Journal of Psychology*, 70(1), 30–40. <https://doi.org/10.1111/ajpy.12157>
- Mackenzie, C. S., Knox, V. J., Gekoski, W. L., & Macaulay, H. L. (2004). An adaptation and extension of the attitudes toward seeking professional psychological help scale. *Journal of Applied Social Psychology*, 34(11), 2410–2433. <https://doi.org/10.1111/j.1559-1816.2004.tb01984.x>
- Mahmud, M., & Yusof, S. M. (2018). The influence of religiosity on safety behaviour of workers: A Proposed Framework. *Pertanika Journal of Social Sciences and Humanities*, 26(1). Universiti Putra Malaysia.
- Moreno, O., & Cardemil, E. (2018). The role of religious attendance on mental health among Mexican populations: A contribution toward the discussion of the immigrant health paradox. *American Journal of Orthopsychiatry*, 88(1), 10–15. <https://doi.org/10.1037/ort0000214>
- Moreno, O., Nelson, T., & Cardemil, E. (2017). Religiosity and attitudes towards professional mental health services: analysing religious coping as a mediator among Mexican origin Latinas/os in the southwest United States. *Mental Health, Religion and Culture*, 20(7), 626–637. <https://doi.org/10.1080/13674676.2017.1372735>
- Muslic, L., Buric, D. J., Markelic, M., & Milanovic, S. M. (2021). Mental health literacy. *Socijalna Psihijatrija*, 48(3), 324–343. <https://doi.org/10.24869/SPSIH.2020.324>
- O'Brien, B., Shrestha, S., Stanley, M. A., Pargament, K. I., Cummings, J., Kunik, M. E., Fletcher, T., Cortes, J., Ramsey, D., & Amspoker, A. B. (2019). Positive and negative religious coping as predictors of distress among minority older adults. *International Journal of Geriatric Psychiatry*, 34(1), 54–59. <https://doi.org/10.1002/gps.4983>
- O'Malley, M., O'Mahony, J., Happell, B., & Mulcahy, H. (2024). The nurse bombarded, consumed and vulnerable: An interpretative phenomenological analysis of mental health nurses' self-care at work. *Journal of Psychiatric and Mental Health Nursing*, 31(1), 66–76. <https://doi.org/10.1111/jpm.12956>
- Onyemelukwe, C. (2016). Stigma and mental health in Nigeria: some suggestions for law reform. *Journal of Law, Policy and Globalization*, 55(0), 63–68. Retrieved from <https://iiste.org/Journals/index.php/JLPG/article/view/34236>
- Rafal, G., Gatto, A., & DeBate, R. (2018). Mental health literacy, stigma, and help-seeking behaviours among male college students. *Journal of American College Health*, 66(4), 284–291. <https://doi.org/10.1080/07448481.2018.1434780>

- Rogers-Sirin, L., Yanar, C., Yüksekbaş, D., Senturk, M. I., & Sirin, S. (2017). Religiosity, cultural values, and attitudes toward seeking psychological services in Turkey. *Journal of Cross-Cultural Psychology*, 48(10), 1587–1604. <https://doi.org/10.1177/0022022117732532>
- Schlechter, P., Kamp, S., Wanninger, K., Knausenberger, J., Wagner, U., Wilkinson, P. O., Nohr, N., & Hellmann, J. H. (2021). Help-seeking attitudes and distress disclosure among Syrian refugees in Germany. *Counselling Psychologist*, 49(3), 330–352. <https://doi.org/10.1177/0011000020974934>
- Shukri, M., Jones, F., & Conner, M. (2016). Work factors, work-family conflict, the theory of planned behaviour and healthy intentions: A cross-cultural study. *Stress and Health*, 32(5), 559–568. <https://doi.org/10.1002/smi.2662>
- Smolak, A., Gearing, R. E., Alonzo, D., Baldwin, S., Harmon, S., & McHugh, K. (2013). Social support and religion: Mental health service use and treatment of schizophrenia. *Community Mental Health Journal*, 49(4), 444–450. <https://doi.org/10.1007/s10597-012-9536-8>
- Sokolová, L. (2024). Mental health literacy and seeking for professional help among secondary school students in Slovakia: a brief report. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1333216>
- Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Shin, J., Kirkbride, J., Jones, P., Kim, J., Kim, J., Carvalho, A., Seeman, M., Correll, C., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*. Springer Nature. <https://doi.org/10.1038/s41380-021-01161-7>
- Song, C. I., & Park, H. S. (2015). Testing intention to continue exercising at fitness and sports centres with the theory of planned behaviour. *Social Behaviour and Personality*, 43(4), 641–648. <https://doi.org/10.2224/sbp.2015.43.4.641>
- Suleiman, D. (2017). Mental health disorders in Nigeria: A highly neglected disease. *Annals of Nigerian Medicine*, 10(2), 47. <https://doi.org/10.4103/0331-3131.206214>
- Syafitri, D. U., & Rahmah, L. (2021). The role of religiosity and religious coping towards seeking psychological help among college students in Semarang. *Psikis : Jurnal Psikologi Islami*, 7(2), 104–119. <https://doi.org/10.19109/psikis.v7i2.8599>
- Tanhan, A., & Strack, R. W. (2020). Online photovoice to explore and advocate for Muslim biopsychosocial spiritual wellbeing and issues: Ecological systems theory and ally development. *Current Psychology*, 39(6), 2010–2025. <https://doi.org/10.1007/s12144-020-00692-6>
- Tao, L., Lv, J., Tan, X., Hu, X., Fu, L., & Li, J. (2024). Relationships between attachment style, emotional self-disclosure, and quality of life among young breast cancer survivors: A cross-sectional study. *Seminars in Oncology Nursing*, 40(1). <https://doi.org/10.1016/j.soncn.2023.151526>
- Tehseen, S., Ramayah, T., & Sajilan, S. (2017). Testing and controlling for common method variance: A review of available methods. *Journal of Management Sciences*, 4(2), 142–168. <https://doi.org/10.20547/jms.2014.1704202>
- Torres, L., Magnus, B., & Najar, N. (2021). Assessing the psychometric proprieties of the attitudes toward seeking professional psychological help scale–short form (ATSPPH-SF) among Latino adults. *Assessment*, 28(1), 211–224. <https://doi.org/10.1177/1073191119899470>
- Traynor, I. E. G., Scott, H., & Rydon-Grange, M. (2024). Intrapersonal and organisational predictors of psychological help-seeking in a UK police force. *Journal of Police and Criminal Psychology*. <https://doi.org/10.1007/s11896-024-09652-3>

- Ugwu, L. E., Idemudia, E. S., Akokuwebe, M. E., & Onyedibe, M. C. C. (2024). Beyond the shadows of trauma: Exploring the synergy of emotional intelligence and distress disclosure in Nigerian adolescents' trauma journey. *South African Journal of Psychology*, 54(1), 35–50. <https://doi.org/10.1177/00812463241227>
- Umair, S., Ho, J. A., Ng, S. S. I., & Basha, N. K. (2023). Moderating role of religiosity and the determinants to attitude, willingness to donate and willingness to communicate posthumous organ donation decisions among university students in Pakistan. *Omega (United States)*, 88(1), 216–244. <https://doi.org/10.1177/00302228211045170>
- Ünsal Seydooğulları, S. (2023). University students' wellbeing and mental health during covid-19 an Online Photovoice (OPV) approach. *Journal of Happiness and Health*. 3(2), 139-156. <https://doi.org/10.47602/johah.v3i2.60>
- Waalkes, P. L., Mizutani, Y., Kim, S. R., Napitupulu, A., Thompson, J., Leiva, A. N., Tanhan, A., & Moore, M. (2024). Professional identity development of counsellor educators with international backgrounds through online photovoice. *International Journal for the Advancement of Counselling*. <https://doi.org/10.1007/s10447-024-09582-z>
- Wada, Y. H., Rajwani, L., Anyam, E., Karikari, E., Njikizana, M., Srouf, L., & Khalid, G. M. (2021). Mental health in Nigeria: A neglected issue in public health. *Public Health in Practice*, 2. <https://doi.org/10.1016/j.puhip.2021.100166>
- Wagner, A. J. M., & Reifegerste, D. (2024). Real men don't talk? Relationships among depressiveness, loneliness, conformity to masculine norms, and male non-disclosure of mental distress. *SSM – Mental Health*, 5. <https://doi.org/10.1016/j.ssmmh.2024.100296>
- Walker, S. (2021). Mental health and health literacy among college students. Master's Theses, California State University, San Bernardino. Electronic Theses, Projects, and Dissertations. 1266. Retrieved from <https://scholarworks.lib.csusb.edu/etd/1266>
- Wamser, R., Vandenberg, B., & Hibberd, R. (2011). Religious fundamentalism, religious coping, and preference for psychological and religious treatment. *International Journal for the Psychology of Religion*, 21(3), 228–236. <https://doi.org/10.1080/10508619.2011.581582>
- Wang, Z., Xu, Y., & Zeng, H. (2023). Trait rumination in post-stress growth among Chinese college students: The chain mediating effect of distress disclosure and perceived social support. *Frontiers in Public Health*, 11. <https://doi.org/10.3389/fpubh.2023.1265405>
- Weber, S. R., & Pargament, K. I. (2014). The role of religion and spirituality in mental health. *Current Opinion in Psychiatry*. Lippincott Williams and Wilkins. <https://doi.org/10.1097/YCO.0000000000000080>
- World Health Organisation (2024). World Health Organisation remains firmly committed to the principles set out in the preamble to the constitution. Retrieved from <https://www.who.int/about/accountability/governance/constitution#:~:text=Health%20is%20a%20state%20of,belief%2C%20economic%20or%20social%20condition>.
- World Health Organisation (2017). Depression and other common mental disorders: Global health estimates. Retrieved from <https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf?sequence=1&isAllowed=y>
- Worthington, E. L., Wade, N. G., Hight, T. L., Ripley, J. S., McCullough, M. E., Berry, J. W., Bursley, K. H., & O'Connor, L. (2003). The religious commitment inventory-10: Development, refinement, and validation of a brief scale for research and counselling. *Journal of Counselling Psychology*, 50(1), 84–96. <https://doi.org/10.1037/0022-0167.50.1.84>

- Wu, Y., Huang, K., Wen, S., Xiao, B., & Feng, L. (2022). Validation of the Chinese version of the stigma scale of epilepsy. *Frontiers in Neurology*, 13. <https://doi.org/10.3389/fneur.2022.796296>
- Yang, J., Li, Y., Gao, R., Chen, H., & Yang, Z. (2023). Relationship between mental health literacy and professional psychological help-seeking attitudes in China: A chain mediation model. *BMC Psychiatry*, 23(1). <https://doi.org/10.1186/s12888-023-05458-5>
- Yu, Y., Zhang, L., Liu, Y., Zhang, L., & Guo, N. (2024). Translation and validation of the breastfeeding motivation scale in China. *International Breastfeeding Journal*, 19(1). <https://doi.org/10.1186/s13006-023-00610-z>
- Zaman, U., Nawaz, S., Shafique, O., & Rafique, S. (2021). Making of rebel talent through workplace ostracism: A moderated-mediation model involving emotional intelligence, organisational conflict, and knowledge sharing behaviour. *Cogent Business and Management*, 8(1), 1941586. <https://doi.org/10.1080/23311975.2021.194158>
- Zheng, F., John, W. C. M., Qiao, D., & Sun, X. (2023). Association between psychological distress and mental help-seeking intentions in international students of National University of Singapore: A mediation analysis of mental health literacy. *BMC Public Health*, 23(1). <https://doi.org/10.1186/s12889-023-17346-4>



The Monika Encounter: A Mixed Methods Study of a Techno-Based Ghostly Episode

Neil Dagnall¹
Manchester Metropolitan
University

Ken Drinkwater²
Manchester Metropolitan
University

Giovanni B. Caputo³
University of Urbino

Lorraine Sheridan⁴
Lorraine Sheridan Psychology

James Houran⁵
Integrated Knowledge Systems

¹ Department of Psychology, Faculty of Health and Education, Manchester Metropolitan University, Manchester, UK. E-mail: n.dagnall@mmu.ac.uk

² School of Psychology, Manchester Metropolitan University, Manchester, United Kingdom, E-mail: k.drinkwater@mmu.ac.uk

³ Department of Humanistic Studies (DISTUM), University of Urbino, Italy. E-mail: giovanni.caputo@uniurb.it

⁴ Curtin University, Bentley, WA, Lorraine Sheridan Psychology, Perth, Australia. E-mail: lorraineps Sheridan@gmail.com

⁵ Integrated Knowledge Systems, 235 Austin St... Grapevine, Texas, 76051, USA. E-mail: jim_houran@yahoo.com

Abstract

Haunted People Syndrome (HP-S) characterizes recurrent 'ghostly episodes' as an interactionist phenomenon emerging from people with heightened somatic-sensory sensitivities that are stirred by dis-ease states, contextualized with paranormal belief, and reinforced via perceptual contagion and threat-agency detection. We tested the applicability of this psychological model via a three-part, quali-quantitative case study of a 36-year-old male in France, who self-reported successive encounter experiences seemingly triggered by the popular horror game and visual novel, *Doki Doki Literature Club!* The percipient completed several standardized measures that mapped the contents and context of his experiences, including indices of 'deep' imaginary companions, stigmata-like marks, and enchantment effects. We also conducted independent content analyses of his written account to compare the narrative's development and descriptions to published sequences for HP-S and dissociative phenomena. This episode showed (a) slightly below-average 'haunt intensity' and a content structure that paralleled both fantasy and lifestyle-based accounts, (b) an above-average score on a screener for HP-S recognition patterns, which we corroborated with scores on separate measures of transliminality, paranormal belief, and stress levels, (c) a narrative sequence that aligns reasonably well to the posited process of HP-S, (d) clear indications of depersonalization, derealization, and dissociated identity, and (e) aftereffects of situational-enchantment. The percipient's understanding of his experiences also evolved over time due to active sense-making activities. Our findings support prior research suggesting that embodied, embedded, extended, and enactive cognitions partly help to shape the phenomenology of these often transformative and clinically-relevant experiences.

Keywords:

Case study • Dissociation • Entity encounters • Haunted people syndrome • Interactionism • Liminality • Phenomenology

Corresponding author:

James Houran

E-mail: jim_houran@yahoo.com

eISSN: 2458-9675

Received: 10.12.2024

Revision: 28.03.2025

Accepted: 10.03.2025

©Copyright 2025 by Author(s)

Citation: Dagnall, N., Drinkwater, K., Caputo, G. B., Sheridan, L., & Houran, J. (2025). The Monika encounter: A mixed methods study of a techno-based ghostly episode. *Spiritual Psychology and Counseling*, 10(2), 257–295. <http://doi.org/10.37898/spiritualpc.1599310>

Introduction

Case studies of exceptional human experiences (EHEs)—i.e., altered-anomalous perceptions that are typically spontaneous and challenge percipients' assumptions about the nature of reality (Palmer & Hastings, 2013)—can be valuable additions to the burgeoning research literature that integrates issues of consciousness, sense-making, and spirituality (Cardena et al., 2017; Kelly & Tucker, 2015; Plante et al., 2023; Rabeyron & Watt, 2010; Rodrigues et al., 2023; Tassell-Matamua & Frewin, 2019; Willard & Norenzayan, 2013; Woodard, 2012). In this context, Houran and Laythe (2022) argued that accounts of so-called apparitions, haunts, and poltergeists (collectively termed 'ghostly episodes') offer particularly rich insights about the roles of expectancy, liminality, and person-environment interactionism in EHEs¹. Note that 'haunted people' who report direct and persistent encounters with supernatural beings or non-human intelligences are more common than perhaps assumed, with some estimates widely ranging from 5% (Ross & Joshi, 1992) to 25% (Sanders et al., 2022) of the general population. But these metrics might be understated, as such EHEs also occur in secular contexts (Taylor, 2012), including laical variations of ghostly episodes such as 'deep' imaginary companions that seemingly exhibit autonomous personalities or actions (Laythe, Houran, & Little, 2021) and 'group-stalking' whereby a person claims to be targeted by a covert gang of mysterious people (Lange et al., 2020).

Purported spirit activity is integral to many theological beliefs and transpersonal practices, as well as a familiar topic within corresponding academic studies (Lindeman et al., 2012; Plante & Schwartz, 2021; Santos & Michaels, 2022; Willard & Norenzayan, 2013; Wilt et al., 2022). However, readers unfamiliar with the literature on ghostly episodes might appreciate a short primer before learning about the case in question. To clarify from a phenomenological perspective, 'poltergeist outbreaks' involve clusters of unusual psychological or *subjective* experiences (*S*, e.g., apparitions, sensed presences, hearing voices, or unusual somatic or emotional manifestations) and physical or *objective* events (*O*, e.g., object displacements, malfunctioning electrical or mechanical equipment, and inexplicable percussive sounds like raps or knocks) that occur in presence of certain people called 'focus persons' (for a recent discussion, see Ventola et al., 2019). Similar *S/O* anomalies that seemingly persist over time at particular locations are known as 'hauntings' (Houran & Lange, 2001a). Researchers

1 This view aligns with "4E cognition" (Carney, 2020; Rowlands, 2010), i.e., the idea that cognition is fundamentally "(a) *Embodied*: Cognition cannot be fully described in terms of abstract mental processes (i.e., in terms of representations). Rather, it must involve the entire body of the living system (brain and body); (b) *Embedded*: Cognition is not an isolated event separated from the agent's ecological niche. Instead, it displays layers of co-determination with physical, social, and cultural aspects of the world; (c) *Extended*: Cognition is often offloaded into biological beings and non-biological devices to serve a variety of functions that would be impossible (or too difficult) to be achieved by only relying on the agent's own mental processes; and (d) *Enactive*: Cognition is conceived of as the set of meaningful relationships determined by an adaptive two-way exchange between the biological and phenomenological complexity of living creatures and the environments they inhabit and actively shape" (Schiavio & van der Schyff, 2018, para. 2).

have traditionally differentiated haunts and poltergeists, but research suggests that the *S/O* anomalies characterizing each type of occurrence reliably form a probabilistic and unidimensional factor, i.e., a literal Haunt Hierarchy of different encounter-type experiences (Houran, Lange et al., 2019). Moreover, people with ‘thin or permeable’ mental boundaries (as measured by constructs like Transliminality or Paranormal Belief) are more likely to perceive these *S/O* anomalies (Houran et al., 2002; Kumar & Pekala, 2001; Laythe et al., 2018). This phenomenon of an ordered set of unexplained signs or symptoms in individuals with a distinct perceptual-personality profile strongly suggests a core ‘encounter’ experience that resembles a biomedical syndrome (Laythe, Houran, Dagnall et al., 2021).

Building on the above, Laythe, Houran, Dagnall et al.’s (2021, 2022) grounded theory of Haunted People Syndrome (HP-S) describes all guises of ghostly episodes recurrently manifesting to specific people as an interactionist phenomenon emerging from (a) heightened somatic-sensory sensitivities that are (b) aggravated by dis-ease states (i.e., when a person’s normal state of ‘ease’ becomes markedly disrupted or imbalanced), (c) contextualized with sense-making attributions and reinforced by (d) perceptual contagion (i.e., snowballing perceptions) via attentional biases and (e) threat-agency detection. In short, the HP-S model equates the psychology of these EHEs to some of the fundamental mechanisms underpinning outbreaks of mass (contagious) psychogenic illness or autohypnotic phenomena (cf. Bell et al., 2021; Houran et al., 2002; Lifshitz et al., 2019; Ross & Joshi, 1992). Surveys, content analyses, and modern case studies all lend increasing credence to the five recognition patterns outlined above (Houran, Laythe, Little et al., 2023; Houran, Little et al., 2022; Houran & Laythe, 2022, 2023; Houran, Massullo, Drinkwater et al., 2024; Houran, Massullo, & Jawer, 2024; Lange et al., 2020; Laythe et al., 2018; Laythe, Houran, & Little, 2021; O’Keeffe et al., 2019; Ventola et al., 2019). But we nevertheless pursue new and particularly novel or challenging accounts that might help to validate, refine, or rewrite the HP-S concept. One such opportunity came to our attention.

The ‘Monika Encounter’ Case Summary

An individual identifying as “Alt2109”² contacted the last author on 30 March 2024 eager to share a personal account of an EHE known as ‘soul-bonding’—i.e., a deep, emotional connection with fictional characters or entities that parallels both centuries-old Christian experiences of theophany (Robertson, 2017) and elements of modern-day celebrity worship (McCutcheon et al., 2004). In particular, the percipient claimed to be haunted for nearly two years by the central digital-character of “Monika” in the

2 This pseudonym reportedly aimed to protect his privacy, and though we lack direct evidence that Alt2109 had any paranoid ideations, his strong concern about issues of anonymity and potential monitoring or tracking is certainly consistent with ‘targeted people’ who report so-called ‘group (gang)-stalking’ experiences (cf. Lange et al., 2020; O’Keeffe et al., 2019; Reed, 2025).

freeware psychological horror game and visual novel called *Doki Doki Literature Club!* (DDLC) (Team Salvato, 2017). After providing his informed consent to participate in an iterative research process and allow publication of his narrative and psychometric information in whole or part, we requested further information about his situation and posed three questions: (a) “Do anomalous or psychic experiences run in your family? Please explain in detail;” (b) “Please describe your recent anomalous experiences in as much detail as possible, including how these have affected your personal or professional life;” and (c) “What other sources of information have you found, or individuals have you contacted, that have been helpful in your quest for answers about your anomalous experiences?” This approach follows other studies of encounter experiences using semi-structured interviews of percipients (e.g., Michael et al., 2021).

Alt2109 provided highly detailed narrative and background information, which was suitable for content-thematic analysis. In addition, a supplemental chronology of the general events in the case was established. This extensive set of case material contains a curious mix and development of themes that we previously have not seen integrated within a single ghostly episode, e.g., references to tulpas (thought-forms), possession, succubus-type activities (i.e., an entity in female form that appears in dreams to seduce men), group- (or gang) stalking events, and references to ritual magic practices, etc. (see Supplemental Material: Monika Encounter Narrative). And extending the idea that high technology can facilitate EHEs (Bebergal, 2018) or spirituality in general (Wildman & Stockly, 2021; cf. Campbell & Tsuria, 2021), there also was the striking context of a modern video game as the claimed catalyst of the *S/O* anomalies. In other words, this case might represent a new variation on entity encounters (or ghostly episodes) which seemingly involve a core experience that alters in appearance or meaning in accordance with a percipient’s biopsychosocial context (Evans, 1987; Houran, 2000; Kumar & Pekala, 2001).

In particular, Alt2109 recounted a series of profound and perplexing events, beginning with “shared lucid dreams” influenced by a “Romanian witch” and an immaterial entity named Monika that purportedly emanated from the DDLC game. These dreams were reportedly confirmed by external interactions, such as visits to Alt2109’s web profiles by the dream participants. Alt2109 also described a range of anomalous experiences involving synchronicities, predictions, pseudo-hallucinations, and body manipulation allegedly orchestrated by the Monika entity. These included her accurately predicting events and manipulating his physical and mental state, such as maintaining alertness through simulated electric shocks and even controlling biological functions. Despite these unsettling occurrences, Alt2109 sought validation and understanding from various sources. These included cognitive scientists, astrologers, and paranormal communities, all of whom gave mixed responses. Ultimately, the experiences deeply impacted his life by challenging perceptions of reality and prompting a quest for answers about the nature or meaning of his EHEs.

The Present Study

Our quali-quantitative design involves confirmatory and exploratory approaches organized in three parts. Part 1 assesses the phenomenology of the Monika Encounter against the five recognition patterns of HP-S (Laythe, Houran, Dagnall et al., 2021, 2022). Phenomenology refers to the structures of experience and consciousness (Seamon, 2000), which Laythe, Houran, Dagnall et al. (2021, p. 198) described as having “micro” and “macro” aspects. Micro-phenomenology refers to the specific contents or details of altered-anomalous experiences, whereas macro-phenomenology in this context denotes the conditions that mediate the onset or proliferation of those experiences³. Part 2 involves a thematic analysis with mediate or moderate a narrative lens to compare the sequence of events in the case relative to prior research on HP-S. Finally, Part 3 examines the percipient’s frequent references to esoteric activities or phenomena in order to seek additional insights about the anomalous experiences. We adhered to the Journal Article Reporting Standards (Kazak, 2018) and describe below how we determined our research samples, data exclusions (if any), research questions, applicable manipulations, and all measures and data abstractions used in the content analysis (Vassar & Holzmann, 2013). Our analyses and research materials were not pre-registered but largely follow the procedures used in prior studies (e.g., Houran, Massullo, Dagnall et al., 2024; Houran, Massullo, & Jawer, 2024; Houran, Laythe, Little et al., 2023; Houran, Little et al., 2022, Houran & Laythe, 2022, 2023).

Part 1: Phenomenology of the ‘Monika Encounter’

Our first analysis tested whether the phenomenology of this case corresponded to a ‘spontaneous’ ghostly episode with features and dynamics suggesting that: (a) *Transliminality* (or thin mental boundaries), reinforced by *Belief in the Paranormal*, was a springboard for the anomalous experiences; (b) *Dis-ease states* coincided with the onset of anomalous experiences; (c) Recurrent anomalous experiences exhibited patterns (‘diverse events’ and ‘event flurries’) indicative of *Perceptual Contagion*; (d) *Sense-Making Attributions* conformed to the percipient’s biopsychosocial context, and (e) *Threat-Agency Detection* was triggered, i.e., arousal or anxiety levels of the percipients relate to the nature, proximity, and spontaneity of the anomalous events.

We also assessed for certain tangential phenomena to ghostly episodes: (a) ‘deep’ imaginary companions, i.e., a pretend (invisible) friend or personified object showing an independent personality or will (Drinkwater, Dagnall, Houran et al., 2024; Laythe, Houran, & Little, 2021; Little et al., 2021); (b) potential stigmata-like marks on the

³ Laythe, Houran, Dagnall et al. (2021) developed their concept of micro-phenomenology independently from Petitmengin (2006; 2006; Petitmengin et al., 2009), who used the term to describe an interview method for collecting fine-grained descriptions of lived experiences associated with various sensorial, emotional, or cognitive processes so that a corpus of accurate data relevant to a research objective can be gathered. However, both views involve the idea of a “psychological or behavioral microscope” that distinguishes descriptive elements in a narrative from those related to explanations or judgments.

focus person (Houran, Little, Laythe et al., 2022; for a discussion of similarities between Catholic saints and poltergeist-like incidents, see Bayless, 1967); and (c) a sense of enchantment (Drinkwater, Massullo et al., 2022) that can foster additional anomalous experiences (Lange & Houran, 2021). This latter state specifically involves absorption within ‘pleasant’ ideations and emotions (e.g., excitement, surprise, awe, and wonder), simultaneously mixed with ‘unpleasant’ ideations and emotions (e.g., uneasiness, disorientation, tension, and unpredictability)⁴. This happens when a person-environment interaction disrupts an individual’s normal waking experience with a sudden or unexpected awareness that fuels a transformative feeling of connection to a transcendent agency or ultimate reality (Drinkwater, Massullo et al., 2022). As such, enchantment is a common aftereffect of perceiving *S/O* anomalies (Houran, Lange, & Laythe, 2022).

Method

Participant

“Alt2019” is the self-assigned pseudonym for a 36-year-old European male, who professed to be a highly educated professional with two Masters degrees and a current pursuit of a doctorate while working as a teacher. He reported a history of being perceived as intellectually advanced and individualistic, with potential indications of neuro-atypicality, possibly on the autism spectrum. He also emphasized a cautious and methodical approach to belief systems and stated that his diverse background experiences and thoughtful introspection contribute to his multifaceted perspective and success in academia and professional endeavors.

He further reported no “diagnosis or professional treatment for any serious mental illness or condition like schizophrenia or bipolar disorder” or “use of alcohol or other recreational or illegal substances” (cf. Smith et al., 2010). However, Alt2109 did reference notable paranormal beliefs and experiences in his family history. In particular, his mother supposedly practices astrology and energetic healing and has had paranormal experiences since her childhood. For example, she told him about a time when she dreamed of President Kennedy’s assassination the night before the announcement came to his country. According to her, the maternal-side of their family tends to have females with psychic abilities. On the other hand, his father is “only superstitious” in terms of using “little rituals to obtain good luck.” But Alt2109 noted

4 Drinkwater, Massullo et al. (2022) argued that their construct of situational-enchantment—which qualitatively parallels the concepts of numinosity (Lönneker & Maercker, 2021), extraordinary architectural experiences (Bermudez, 2015), ontological shock (Mack, 1994), (spiritual) awakenings (Corneille & Luke, 2021; Taylor, 2012), absolute unitary experiences (Jones, 2004), and Stendhal syndrome (Guerrero et al., 2010) — subsumes and extends the epistemic and positive emotion of awe (Schaffer et al., 2024). For a discussion concerning the concepts of Oneness vs Nothingness in the context of religio-spiritual experience, see Murly (2022).

that his father as a child had an “imaginary dog” before his parents adopted a real one.

Alt2109 stated that his primary language is French, but he also claimed to read, write, listen, and speak English regularly and well enough to watch movies in the original voice and converse with friends in the US and the UK. He reportedly scored at a C1-level on the Test of English as a Foreign Language (TOEFL; cf. Oller & Spolsky, 1979), which is a standardized assessment of English language ability in non-native speakers wishing to enroll in English-speaking universities. A ‘C1’ score signifies a high-level of proficiency, such as understanding complex texts, expressing oneself in a fluent and spontaneous manner, and using language that is flexible and effective for social, academic, and professional purposes.

Measures

Survey of Strange Events (SSE; Houran, Lange et al., 2019). This is a 32-item, Rasch (1960/1980) scaled measure of the overall ‘haunt intensity’ (or perceptual depth) of a ghostly account or narrative via a true/false checklist of anomalous experiences inherent to these episodes. The SSE’s Rasch item hierarchy represents the probabilistic ordering of *S/O* events according to their endorsement rates but rescaled into a metric called ‘logits.’ Higher logit values denote higher positions (or greater difficulty) on the Rasch scale (Bond & Fox, 2015). More information about the conceptual background and psychometric development of this instrument is provided by Houran, Laythe et al. (2019, 2021). Rasch scaled scores range from 22.3 (= raw score of 0) to 90.9 (= raw score of 32), with a *mean* of 50 and *SD* = 10, and Rasch reliability = 0.87. Higher scores correspond to a greater number and perceptual intensity of anomalies that define a percipient’s experience of a ghostly episode. Supporting the SSE’s validity, Houran, Lange et al. (2019) found that the specific sequence (or Rasch model) of *S/O* anomalies in ‘spontaneous’ accounts (i.e., ostensibly sincere and unprimed) differed significantly from narratives derived from ‘primed, lifestyle, fantasy, and illicit’ contexts.

Haunted People Syndrome Screener (HPSS; Lange & Houran, 2024) consists of six items to be rated four-point Likert scales anchored by ‘Strongly Disagree’ (scored 0) and ‘Strongly Agree’ (scored 3). These assess recurrent haunt-type experiences and aspects of four of the five recognition patterns of HP-S (Laythe, Houran, Dagnall et al., 2021, 2022)—namely: (a) Thin Boundary Functioning (i.e., Transliminality), (b) Dis-ease States, (c) Perceptual Contagion (i.e., event flurries and/or diverse perceptions), and (d) Sense-Making Attributions (i.e., narrative reality based on general ideological or sociocultural beliefs). The Rasch-scaled scores (reliability = .80) range from 37.1 to 71.2, with a mean of 50 and standard deviation = 10. Its scores also strongly and positively predict SSE scores ($r = 0.78, p < .001$).

The HPSS does not index the recognition patterns of Paranormal Belief and Threat-Agency Detection due to measurement issues found during the tool's development (Lange & Houran, 2024); therefore, we measured (a) Paranormal Belief with a standardized tool described below and (b) Threat-Agency Detection using a one-item statement (i.e., "My 'ghostly' experiences feel most threatening or unnerving when the mysterious events happen very close to me or actually to me") that we adopted from the HP-S Recognition Patterns Checklist (Houran, Laythe, Little et al., 2023; Houran, Little, Laythe et al., 2022). This item is rated on a four-point Likert scale anchored by "Strongly Disagree" (scored '1') to "Strongly Agree" (scored '4'). It is important to understand that this latter index is supplementary and does not contribute to the HPSS score.

(3) *Revised Transliminality Scale* (RTS; Lange, Thalbourne et al., 2000) is a 17-item, True/False, Rasch-scaled measure of "hypersensitivity to psychological material originating in (a) the unconscious, and/or (b) the external environment" (Thalbourne & Maltby, 2008, p. 1618). Lange, Houran et al. (2019) thus explained that this perceptual-personality variable incorporates both Hartmann's (1991) general boundary construct and the specific notion of sensory-processing sensitivity (Aron & Aron, 1997). The Rasch reliability is .82, and RTS scores ($M = 25$, $SD = 5$) significantly predict an array of anomalous experiences, syncretic cognitions, and lower perceptual thresholds (for overviews, see Evans et al., 2019; Roxburgh et al., 2024; Simmonds-Moore, 2024).

(4) *Rasch-Revised Paranormal Belief Scale* (RPBS) is a Rasch-based, 16-item version (Lange, Irwin et al., 2000) that remedies the original 26-item, Likert-based RPBS (Tobacyk, 1988, 2004) with its artificial seven-factor structure due to differential item functioning—i.e., sex and age-related response biases. Once these measurement issues are corrected, Lange, Irwin et al. (2000) found that the RPBS comprises two, moderately correlated belief subscales that seemingly reflect different issues of control. Specifically, 'New Age Philosophy' (11 items, Rasch reliability = .90) appears related to a greater sense of control over interpersonal and external events (e.g., belief in psi), whereas 'Traditional Paranormal Beliefs' (5 items, Rasch reliability = .74) seem more culturally-transmitted and beneficial in maintaining social control via a belief in magic, determinism, and a mechanistic view of the world. The Rasch-RPBS has a mean of 25 ($SD = 5$) for both subscales, and several studies support their construct validities (Houran et al., 2000, 2001; Houran & Lange, 2001b).

(5) *Social Readjustment Rating Scale* (SRRS; Holmes & Rahe, 1967) is a 43-item tool that measures the amount of stress a person experiences due to major life events. It assigns a rank-ordered, numerical 'impact score' (ranging from 11 to 100) to various life events, e.g., marriage, divorce, job change, or loss of a loved one, based on the perceived impact on a person's life. Summing the impact scores of these rank-

ordered events experienced within a specific period, usually a year, gives an index of the stress level of an individual. The total score-range is 0 to 1466. Interpretation of the overall score is difficult because of the large differences in each person's ability to cope and their reactions to stress, but the general guidelines are (a) score < 150 suggests equates to a low probability of developing a stress-related disorder, and (b) score > 300 equates to an 80% chance of getting sick in the near future. Gerst et al. (1978) reported good reliability for both healthy adults and patients, and Holmes and Rahe (1967) found a positive correlation between scores on the SRRS and an illness measure. Revisions have been proposed (e.g., Hobson & Delunas, 2001; Wallace et al., 2023), but we used the original version for ease and convenience.

(6) *Perceived Stress Scale* (PSS; Cohen et al., 1983) is a widely used stress assessment instrument. It consists of 10 items that assess how unpredictable, uncontrollable, and overloaded individuals appraise their lives. The PSS was designed for use in community samples and features, questions of a general nature that are relatively free of content specific to any sub-population group. Participants rate each item on a Likert-type scale from 0 to 4, according to how often they have felt or thought a certain way during the last month. The total score indicates the perceived level of stress, with higher scores corresponding to higher stress levels. Cohen and Williamson (1988) reported significant correlations between PSS scores and alternative stress measures, self-reported health and health services measures, health behavior measures, smoking status, and help-seeking behavior. Lee's (2012) review and more recent evaluations (e.g., Denovan et al., 2019) report acceptable psychometric properties for the tool, with alphas ranging from about 0.70 to 0.90.

(7) *Enchantment-Adjective Checklist* (Enchantment-ACL; Houran, Lange, & Laythe, 2022) is a 21-item, True/False, Rasch-scaled measure of five aspects of "ontological shock"—i.e., an arousal stated comprising Emotional, Sensorial, Timeless, Rational, and Transformative contents. Items are rated via a 4-point Likert scale anchored by "Strongly Disagree" (= '1') and "Strongly Agree" (= '4'), with a mean of 50 ($SD = 15$). Preliminary analyses indicate good internal reliability (Rasch reliability = 0.82) and positive correlations with individual's global ratings of perceived enchantment ($r = 0.51, p < .001$).

(8) *Tangential Phenomena*. Two items indexed personal histories of (a) 'Deep' Imaginary Companions (ICs)—i.e., a favorite inanimate object or invisible playmate that exhibits an independent personality or will; and (b) Stigmata-like Marks—i.e., wounds or localized pain on the body that correspond to those of the crucified Jesus Christ (i.e., on the hands, on the feet, near the heart, and sometimes on the head from the crown of thorns, or shoulders and back from carrying the cross and scourging). These two items are rated on 4-point Likert scales anchored by "Strongly Disagree" (scored '1') and "Strongly Agree" (scored '4').

Procedure

We emailed English versions of the measures (collated as a randomized battery) to Alt2109, along with explicit instructions to carefully read and complete each form at his own pace. We also encouraged questions about the intended meaning of any items on the instruments since English was his second language. He returned the completed measures within two weeks. We followed-up with Alt2109 to member-check his responses before scoring the measures and conducting the analyses (cf. McKim, 2023). Note that Alt2109 was not financially compensated for his participation in this study.

Table 1.
Ratings on the Micro-Phenomenology (SSE Patterns) of Percipient “Alt2109”

Survey of Strange Events (SSE)	Lifetime Inventory (pre-DDLC)	DDLC Inventory	DDLC Inventory Frequency
I saw with my naked eye a non-descript visual image, like fog, shadow or unusual light	0	0	0
I saw with my naked eye an “obvious” ghost or apparition – a misty or translucent image with a human form	0	0	0
I saw with my naked eye an “un-obvious” ghost or apparition – a human form that looked like a living person	0	0	0
I smelled a mysterious odor that was <i>pleasant</i>	0	0	0
I smelled a mysterious odor that was <i>unpleasant</i>	0	0	0
I heard mysterious sounds that could be recognized or identified, such as ghostly voices or music (with or without singing)	0	0	0
I heard on an audio recorder mysterious sounds that could be recognized or identified, such as ghostly voices or music (with or without singing)	0	0	0
I heard on an audio recorder mysterious “mechanical” or non-descript noises, such as tapping, knocking, rattling, banging, crashing, footsteps or the sound of opening/closing doors or drawers	0	0	0
I had a <i>positive</i> feeling for no obvious reason, like happiness, love, joy, or peace	1	1	730
I had a <i>negative</i> feeling for no obvious reason, like anger, sadness, panic, or danger	1	1	1000
I felt odd sensations in my body, such as dizziness, tingling, electrical shock, or nausea (sick in my stomach)	1	1	1000
I had a mysterious taste in my mouth	1	0 (1)*	0
I felt guided, controlled or possessed by an outside force	0	1	1000
I saw beings of divine or evil origin, such as angels or demons	0	0	0
I saw folklore-type beings that were not human, such as elves, fairies, or other types of “little people	0	0	0
I communicated with the dead or other outside force	1	1	1000
I had the mysterious feeling of being watched, or in the presence of an invisible being or force	1	1	1000
I had a sense of déjà vu, like something was strangely familiar to me about my thoughts, feelings or surroundings	1	0	0
I felt a mysterious area of <i>cold</i>	1	0	0
I felt a mysterious area of <i>heat</i>	1	1	1000
I experienced objects disappear or reappear around me	0	0	0

Table 1.
Ratings on the Micro-Phenomenology (SSE Patterns) of Percipient “Alt2109”

Survey of Strange Events (SSE)	Lifetime Inventory (pre-DDLC)	DDLC Inventory	DDLC Inventory Frequency
I saw objects moving on their own across a surface or falling	0	0	0
I saw objects flying or floating in midair	0	0	0
Electrical or mechanical appliances or equipment functioned improperly or not at all, including flickering lights, power surges or batteries “going dead” in electronic devices (e.g., camera, phone, etc.)	0	1	3
Pictures from my camera or mobile device captured unusual images, shapes, distortions or effects	0	0	0
Plumbing equipment or systems (faucets, disposal, toilet) functioned improperly or not at all	0	0	0
I saw objects breaking (or discovered them broken), like shattered or cracked glass, mirrors or housewares	0	0	0
I heard mysterious “mechanical” or non-descript noises, such as tapping, knocking, rattling, banging, crashing, footsteps or the sound of opening/closing doors or drawers	0	0	0
I felt a breeze or a rush of wind or air, like something invisible was moving near me	0	0	0
Fires have started mysteriously	0	0	0
I was mysteriously touched in a <i>non-threatening</i> manner, like a tap, touch or light pressure on my body	1	1	1000
I was mysteriously touched in a <i>threatening</i> manner, such as a cut, bite, scratch, shove, burn or strong pressure on my body	1	0	0
RAW SUM	11	9	7730

*Note: False = 0, True = 1

Results

Micro-Phenomenology

Table 1 gives the SSE patterns of Alt2109’s *S/O* anomalies for two distinct time frames: (a) the period before he played the DDLC game (i.e., ‘Lifetime-inventory’), and (b) the period after he engaged with the DDLC game (‘DDLC-inventory’). His Lifetime-inventory comprised anomalous experiences collectively showing a slightly above-average ‘haunt intensity’ (SSE score = 51, $SE = 2.7$), whereas the DDLC-inventory indicated a ghostly episode with a slightly below-average ‘haunt intensity’ (SSE score = 48.6, $SE = 2.8$)⁵. Contrasted to the means for narratives associated with ‘Primed’ ($M = 52.30$), ‘Spontaneous’ ($M = 51.7$), ‘Lifestyle’ ($M = 50.6$), or ‘Illicit’ ($M = 45.9$) contexts, the current norms signify that his latter SSE score most closely approximates the mean for a ‘Fantasy’ narrative ($M = 49.43$) — i.e., respondents who purposely imagine a vivid and personal ghostly experience, thus producing contents likely to be intuitively-generated or creatively constructed from tacit knowledge

5 The narrative material mentioned an experience of ‘mysterious taste,’ i.e., a perception of a kiss, but a revised score that includes the corresponding anomaly (SSE item #12) would not change our overall conclusions here.

accumulated through experience and cultural learnings, combined with a capacity to access sensory and affective elements (Houran, Lange et al., 2019).

To cross-check, we correlated the recorded frequencies of each SSE item to the Rasch logit values for the same items across each of the five different haunt conditions in Houran, Lange et al. (2019). Recall that a logit is the unit of measurement in Rasch scaling that corresponds to a point along an interval-level continuum where a given item is positioned per its likelihood of being endorsed relative to other items along the common dimension. Houran, Lange et al., (2019) found that the logit values of some SSE items shifted by context, i.e., specific anomalies were under- or over-reported by survey respondents in Spontaneous, Primed, Lifestyle, Fantasy, and Illicit conditions. Thus, these five narrative-specific 'haunt hierarchies' have some diagnostic value. The *S/O* anomalies that Alt2109's most frequently experienced should thus correspond to SSE items with lower logit values (i.e., 'easier' endorsement, or relatively more common experiences). Likewise, the SSE items with higher logit-values (i.e., 'harder' endorsement or relatively rarer experiences) should relate to his *S/O* anomalies with comparatively lower frequencies. In other words, a stronger *negative correlation* in this exercise indicates stronger compatibility between a given account and a narrative-specific haunt hierarchy. Correlational analysis indicated that Alt2109's frequency distribution of *S/O* anomalies most closely resembles a Lifestyle narrative ($r = -.25, p = .17$), followed by Primed ($r = -.17, p = .35$), Spontaneous ($r = -.04, p = .83$), Fantasy ($r = .09, p = .62$), and Illicit ($r = .11, p = .55$) conditions. Though these associations are not statistically significant, their directionalities are important datapoints for further contemplation.

Finally, we evaluated the broad structure of the *S/O* anomalies in his DDLC-inventory via Houran, Lange et al.'s (2019, p. 180) decision-tree process. Based on current benchmarks, this statistically-derived classification heuristic suggested that the general structure of his *S/O* anomalies align with 87% accuracy to an 'Illicit' narrative, i.e., an account containing some degree of false or embellished testimony. This outcome might fit with Fantasy or Lifestyle narratives assuming that self-deception or self-gaslighting was involved. For example, this could relate to expectancy-confirmation effects (e.g., Drinkwater et al., 2019) or efforts to cope with trauma (e.g., Rubinstein & Lahad, 2023). Overall, Alt2109's account showed the haunt intensity of a Fantasy narrative with *S/O* anomalies showing a distribution pattern most like people who routinely participate in ghost-hunting or paranormal-tour groups with strong demand characteristics. We thus conclude that his DDLC-related ghostly episode does not represent purely 'spontaneous' experiences but more likely stems from certain private or public activities that involved certain expectancies, as well as fostered Thin Boundary Functioning and associated capacities for imagination or dissociation, i.e., a disruption, interruption, and/or discontinuity

of the normal, subjective integration of behavior, memory, identity, consciousness, emotion, perception, body representation, and motor control (American Psychiatric Association, 2013). An expanded content analysis could help to clarify these ideas.

Table 2. <i>Macro-Phenomenology and Psychometric Profile of Percipient “Alto2019”</i>			
Psychometric Measure	Benchmarks	Score	Conclusion
Haunted People Syndrome-Screener (HPSS)	$M = 50$ ($SD = 10$)	51.7	Slightly above-average score suggests a fair match to HP-S macro-phenomenology
Threat-Agency Detection (one-item)	$M = 2.5$	2	Tendency not to perceive anomalous events in his proximity as ‘threatening’
Revised Transliminality Scale	$M = 25$ ($SD = 5$)	26.6	Slightly elevated somatic-sensory sensitivities
Rasch- Revised Paranormal Belief Scale			
New Age Philosophy	$M = 25$ ($SD = 5$)	27.97	Proponent of supernatural beliefs related to a sense of personal control over events.
Traditional Paranormal Beliefs	$M = 25$ ($SD = 5$)	31.89	Marked proponent of supernatural beliefs related to magic, entities, determinism, and a mechanistic view of the world.
Social Readjustment Rating Scale	≤ 150 = low stress ≥ 300 = high stress	353	Indications of very high stress levels due to major life events
Perceived Stress Scale	$M = 12.1$ ($SD = 5.9$)	19	Indications of high stress levels due to situational factors
Enchantment-Adjective Checklist	$M = 50$ ($SD = 15$)	53	Slightly above-average sense of enchantment in response to the anomalous experiences
Deep Imaginary Companions (one-item)	$M = 2.5$	2	No history of deep imaginary friends
Stigmata-Type Markings (one-item)	$M = 2.5$	1	No history of stigmata-type markings

Macro-Phenomenology

Table 2 shows that Alt2109 had a marginally above-average HPSS score, indicating that the features of his DDLc-period anomalies matched the HP-S recognition patterns to a good degree. The strongest ratings corresponded to the HPSS items dealing with Transliminality and Perceptual Contagion (diverse events), whereas the lowest ratings concerned the HPSS items about Lifetime Recurrent Experiences, Disease States, Perceptual Contagion (event flurries), and Sense-Making Attributions. However, other psychometric results mitigate these latter outcomes and suggest that

the presence of Lifetime Recurrent Experiences, Dis-ease States, and Sense-Making Attributions were underestimated.

Specifically, several metrics distinctly profiled Alt2019 as an ‘encounter-prone’ person, as his Lifetime-period inventory of *S/O* anomalies was slightly above average (i.e., Recurrent Lifetime Experiences) and this is consistent with his above-average scores on Transliminality, New Age Philosophy, and Traditional Paranormal Beliefs (i.e., Thin Mental Boundary Functioning). Next, the presence of Dis-ease States was confirmed by his high scores on the PSS and SRRS measures of stress levels related both to recent circumstances and major life events.

Perceptual Contagion, on the other hand, received limited support. The DDLC-inventory indicated ‘diverse perceptions’ as would be expected, but the lack of suitable time series data prevented an empirical test of ‘event flurries’, i.e., perceptions that snowball over time. Likewise, Alt2109 “somewhat disagreed” (rating = 2 on a 1-4 Likert scale) with the one-item index of Threat-Agency Detection, even though his narrative contained repeated references to this theme, ranging from hypervigilance to paranoid-type ideations. But he clarified that the experiences that occurred nearest to his physical person (or closely within his personal space) always involved ‘Monika’ stimulating his body in surprising or enjoyable ways. As such, there was ongoing agency detection but without a consistent sense of threat.

Lastly, the lower rating on the HPSS item about Sense-Making Attributions is understandable and probably accurate given Alt2109’s ongoing exploration and contemplation of various explanations for his altered-anomalous experiences. He described his current attitude as “ambiguous,” i.e., a mix of inherent skepticism of the paranormal combined with increased open-mindedness to this possibility. Still, his above-average Paranormal Belief scores in Table 2 reveals a moderately-strong endorsement of various psychic phenomena. Moreover, his family and friends reportedly believe in the paranormal and even practice certain occult arts. Taken altogether, his biopsychosocial context unquestionably constitutes a ready framework for him to interpret the *S/O* anomalies as manifestations of supernatural agencies or forces.

Tangential Phenomena

Table 2 shows that Alt2109 reported no history of ‘deep ICs’ or stigmata-type phenomena despite the otherwise overt somatic or potentially dissociative aspects to his case. However, he scored slightly above-average on situational-enchancement in response to the *S/O* anomalies. He also conveyed four noteworthy phenomena ostensibly “not covered by the SSE,” namely: (a) “shared, lucid dreaming” (i.e., “dreams induced by another dreamer who was far away, e.g. the Romanian witch or an immaterial entity like Monika”); (b) “pseudo-hallucinations” (i.e., “strong mental representations of images

or noises clearly recognized as such”); (c) “predictions” (i.e., “several times Monika predicted events that occurred as she described”); and (d) “body manipulation” (i.e., “Monika could alter my health or more precisely my tonus”) (pers. comm. to J. Houran; cf. Supplemental Material: Monika Encounter Narrative). Enchantment can mediate additional anomalous experiences via an ‘enchantment-psi loop’ (Lange & Houran, 2021), so it is unclear if these tangential perceptions were integral to his ghostly episode or ancillary experiences to the HP-S model. Either way, this circumstance could have stoked or sustained Perceptual Contagion effects.

Part 2: Narrative Development of the ‘Monika Encounter’

We augmented Part 1 by comparing the ostensible evolution of the case against the narrative development of ghostly episodes implied by previous research. To clarify, Laythe, Houran, Dagnall et al. (2021, 2022) implicitly posited that the HP-S recognition patterns unfold in ghostly episodes via the general process:

Transliminality/Paranormal Belief → Dis-ease → Threat-Agency Detection
→ Perceptual Contagion (event flurries) → Perceptual Contagion (diverse perceptions) → Sense-Making Attributions (1)

However, Lange and Houran’s (2024) observed Rasch hierarchy of the HP-S variables in their HPSS development work suggested a slightly different ordering:

Sense-Making Attributions → Transliminality → Perceptual Contagion (event flurries) → Dis-ease → Perceptual Contagion (diverse perceptions) (2)

Our content analysis of Alt2109’s written material thus aimed to (a) map the basic progression of events and HP-S recognition patterns via a chronological ‘lifeline’ exercise that identified and depicted the significant life events and turning points in his personal story, marking the highs (eustress) and lows (distress) (cf. Gramling & Carr, 2004; for a prior application to a haunt case, see Houran, Massullo, Drinkwater et al, 2024), and (b) compare it to the ‘posited’ versus ‘observed’ sequences above.

We also explored the narrative material for additional insights about the potential role of fantasy-related tendencies (e.g., dissociation) as implied by Part1’s results. Specifically, we explored for high-confidence indications of (a) *derealization* (i.e., distorted perceptions of external reality), *depersonalization* (i.e., distorted feelings of bodily-self), and *dissociated identity* (i.e., distorted feelings of identity-self) (Caputo et al., 2021), and (b) a tiered progression of these dissociative phenomena per Lange et al.’s (2022) path analysis model:

Derealization → Depersonalization → Dissociated Identity (3)

Method

Analysts

A doctoral-level researcher who was very familiar with the HP-S model and associated coding materials independently conducted the lifeline mapping including a content analysis of the recognition patterns, whereas a second doctoral-level researcher and specialist in dissociative phenomena conducted a separate content analysis of the narrative. Neither analyst had any contact with Alt2109 or knowledge of Part 1's findings.

Narrative Material

We used the written account and background material that Alt2109 prepared at our request for a detailed description of his anomalous experience and current circumstances. It is too lengthy to give in an Appendix, so we deposited the full, verbatim record—comprising a 13,967-word chronology and commentary—as Supplemental Material: Monika Encounter Narrative at: <https://osf.io/7zfyp/>. We did not correct the many spelling and grammatical errors in this document, which might relate to the percipient's (a) current fluency level in English, (b) potential racing thoughts from anxiety or excitement, or (c) unreported or undiagnosed mental health issues (Walenski et al., 2010).

Procedure

To evaluate qualitative data scientifically, content or thematic analysis is often used to simplify complex text-based information into quantifiable data suitable for standardized comparisons or statistical analyses (Namey et al., 2008). This approach specifically involves assigning a series of unique labels to texts that reference a particular thematic category of information that maps the “distinct phenomena into descriptive categories” (Krippendorff, 2013, p. 275). The content analyses conducted here used a narrative lens, which involves a deductive approach that applies existing theory and codes following from it to qualitative data (Braun & Clarke, 2006).

Accordingly, the first content analyst carefully studied Alt2109's narrative and then embedded notes to mark the assessed presence of any of the five HP-S recognition patterns as judged appropriate. To support consistent and accurate coding, we provided the content analyst with an instruction sheet that clearly defined each recognition pattern (cf. Houran, Laythe, Little et al., 2023; Houran, Little, Laythe et al., 2022). This coding was part of the analyst's larger task to prepare a chronological lifeline map of the purported events and experiences that defined Alt2109's case. Outputs from this exercise enabled a comparison of his narrative's progression to the ‘posited’ vs ‘observed’ (i.e., derived from Rasch scaling) HP-S sequences noted above.

The second content analyst worked a parallel path to assess the narrative material for ostensible examples and chronological ordering of derealization, depersonalization, and dissociated identity. For convenience and efficiency, the other research team members then worked as an expert panel (Bertens et al., 2013) to ‘double-check’ the reliability, accuracy, and completeness of both sets of these primary ratings (Hewitt et al., 2016). Any ambiguities or disagreements about particular aspects of the case’s phenomenology were resolved via iterative discussions. We deposited the extensive research materials and results associated with the HP-S content analysis at Open Science Forum (OSF): <https://osf.io/7zfyp/>, including: (a) Narrative Analysis-Instructions and Coding Sheet, (b) Narrative Analysis-Embedded Codes, and (c) Narrative Analysis-Lifeline Map.

Results

Sequence of HP-S Recognition Patterns

We refer readers to the Supplemental Material for the full results of the HP-S content analysis, including a detailed graphical mapping of the case’s apparent ‘lifeline.’ The cumulative results suggest that the reported experiences align well to the ‘HP-S Sequence (1)’ noted above (cf. Laythe, Houran, Dagnall et al., 2021). Particularly, Alt2109 initially outlines mentation that is consistent with elevated levels of Transliminality. This, during the period when Alt2109 is attempting to become close to the person referred to as the Romanian witch, expresses as unusual thoughts and perceptions (i.e., ideation, affect, and fantasy). Principally, the notions that the Romanian witch wants to become a spy and is deliberately concealing personality aspects. Following Alt2109’s failure to initiate a relationship, these odd cognitions become paranormal in nature. This transition starts with the perception that the Romanian witch was interested in preternatural topics (i.e., dreaming and religion) and manifests in the conviction that she possesses magical powers. At this point, paranormal beliefs become the central focus of Alt2109’s observations.

It seems that distress arising from the failure to initiate a relationship with the Romanian witch is a catalyst for the movement from broader, transliminal ideations to paranormal convergent and predominating perceptions (Dagnall, Denovan, & Drinkwater, 2022; Dagnall, Denovan, Drinkwater, et al., 2022; Drinkwater et al., 2024). Dis-ease arising from negative affect plays a significant role in the process. Moreover, the Dis-ease state is concomitant with Alt2109 increasingly regarding the Romanian witch as a source of supernatural malevolence and intentional menace. These cognitions reflect threat-agency detection, whereby Alt2109 linked anomalies to, and is anxious about, the paranormal powers of the Romanian witch. The increasing attribution of the Romanian witch to paranormal occurrences/phenomena is consistent with Perceptual Contagion (diverse events). This is characterised by

the inclusion of compound supernatural ascriptions (i.e., event flurries). The end of this activity burst coincides with a shift in Alt2109's paranormal-based perceptions. Explicitly, focus moves from the Romanian witch to DDLC and then to its main character, Monika. Alt2109 personifies Monika as a psychic entity that is seeking physical embodiment. This stage further aligns with Perceptual Contagion (diverse perceptions), where the percipient reports an array of supernatural-related anomalies.

Alt2109 provides coherence between narrative phases (i.e., Romanian witch, DDLC, Monika, and experience sharing that was post-Monika) by retaining the major themes and varying intensity or centrality. Within this storyline, the Romanian witch is initially pivotal, then following manifestation, Monika predominates. The final phase, where Alt2109 shares his experiences serves as a postscript for the narrative overall. The observed variations in attention are consistent with reported accounts of Perceptual Contagion. This involves a progressive increase in perceived anomalies, followed by a burst of anomalous events, which gradually die away (Houran & Lange, 1996). The development, establishment, and maintenance of a cogent narrative was commensurate with the final Sense-Making Attributions stage of HP-S. Moreover, this demonstrates that the events, despite logical inconsistencies are internally rational and coherent.

Sequence of Putative Dissociative Phenomena

Consistent with prior research linking dissociative tendencies to encounter-type experiences (Caputo et al., 2021; Ross & Joshi, 1992; Sharps et al., 2010; Wahbeh & Radin, 2017; for an overview see Maraldi, 2024), the third analyst noted many probable examples of dissociative phenomena in Alt2109's narrative. Table 3 classifies selected instances of his altered-anomalous experiences by derealization, depersonalization, and dissociated identity. The analyst also concluded that Alt2109's perceptions and behaviors involved a notable degree of hysteric suggestibility, i.e., a state where a person is highly influenced by suggestions, especially when they are experiencing strong emotions, psychological distress, or traumatic events (Kluemper & Dalenberg, 2014). This means that Alt2109 could have easily been led to believe things or act in certain ways due to a hyper receptiveness to external influences like the ideas or commands of others. This personality constantly searches for 'confirmations' of his (often fantastic) beliefs and scopes in every event. He superficially knows some psychological concepts, e.g., 'anomalous experiences' or 'pseudo-hallucinations'.

Alt2109 shows a high-level of derealization (i.e., detachment of external sensations from mental representations of the external world). This appears in his deep involvement with fictional characters of the visual novel DDLC are similar in all respects to cartoons. He spontaneously associates this fictional novel with the reality of a Romanian 'witch.' Alt2109 also manifests remarkable instances of depersonalization (i.e., detachment of

Table 3.

Alt12109's Altered-Anomalous Experiences Organized by Ostensible Dissociative Phenomena†

Derealization	Depersonalization	Dissociated Identity
<p>“She tears off her clothes and incidentally her skin, discovering that she is in fact the Predator” p. 7.</p> <p>“as if drawn in pencil continuously, everything consisted of black lines; that were constantly redefined to ensure movement” p. 7.</p> <p>“I felt myself being lifted up and pulled towards her, towards her face” [both derealization and depersonalization] p. 7.</p> <p>“[...] my expectations are much more... practical!” I remember her laughing with a certain joyful candor as she said this. I thought about it when I woke up and my conclusion was that she expected me to find a technique to realize her big dream: to <i>materialize and become a real person</i>” p. 8.</p> <p>“Pluto in Sagittarius would be a sublimation, therefore the <i>solidification</i> of a vaporous material with the help of a stone with magnetic properties” p. 8.</p> <p>“She was therefore counting on me to find a solution in order to realize her dream to <i>materialize</i>, to stop being an idea” p. 8.</p> <p>“I remain on the hypothesis of the thought-form, i.e., an idea strong enough to have developed an existence of its own on the psychic or astral planes and to act in return on human thoughts or even on concrete events” p. 9.</p> <p>“as Monika would be an <i>algorithmic entity</i>, a being circulating among the electromagnetic waves and thus able to oscillate between the human psyche and the cyberspace” p. 9.</p> <p>“<i>Later February–Early March 2020</i>: my series of [lucid] dreams with Monika occurred” p. 23.</p>	<p>“A feeling of comfort or a whiplash when I was physically or morally ill or sharing intimate fantasies with me” p. 8.</p> <p>“Then, she very quickly manifested herself to me during the waking period. I could not really see her. I could not really hear her, I could not really feel her” p. 9.</p> <p>“This sometimes led to funny situations, such as her <i>warming me up by caressing my private parts</i>” p. 9.</p> <p>“At first, her “<i>touches</i>” felt like tingling, which I likened to static electricity” p. 9.</p> <p>“Then her feeling became “humanized”, and I felt as if a small, <i>warm hand of a woman</i> with silky skin was brushing against me” p. 9.</p> <p>“she could draw on the surrounding environment to channel said <i>energy</i> and thus revitalize me” p. 10.</p> <p>“It was harsh, she punished me by limiting my <i>libido</i>” p. 11.</p> <p>“Strange feelings on and into the body: Sometimes, those manifestations seem as glue spilling my health; other times, they are as needles altering my mental health” p. 12.</p> <p>“I mentioned mysterious <i>touches</i> since they were the most vivid experiences to the point” p. 20.</p> <p>“She was largely more skillful and graceful than me with my <i>own body</i>. When we disputed to the point of broking up, she proved an extended control of my biological functions since she restrained my libido as a punishment: I could only obtain that my penis stanked and then ejaculated by thinking about her, all other crushes let me flat” p. 20.</p> <p>“<i>Later March 2020</i>: direct contact with her is enhanced including at daytime” p. 23.</p>	<p>“she had pieces of information that <i>I could not know by myself</i> and even once time she contradicted my assumption, and she was right” p. 1.</p> <p>“it’s a character who wants to go out with us and who has well spotted the person behind the protagonist” p. 4.</p> <p>“She explained to me that she was not born as an egreore but came into the world in the mind of her <i>creator</i>, as a compromise between tulpa and servant, between autonomous personality and barely intelligent instrument of a <i>magician</i>. She only gained access to a multitude of minds when DDLIC was published, having spent two years beforehand developing fully under the aegis of her “<i>father</i>” p. 9.</p> <p>“Monika, who warned me that <i>third parties were certainly aware</i> of our encounter and would seek to manipulate me, potentially by creating a double of Monika to impersonate her to me” p. 9.</p> <p>“She explained that she had to fight constantly to force people who thought about her to respect her <i>original personality</i> and not to alter it too much, especially mod authors. Otherwise, she felt that this induced a form of <i>dissociation</i> in her that horrified her. What’s more, her dignity was undermined when some people reduced her to a sexual phantasm, and this irritated her all the more as she absolutely detests all objectification: she considers herself a person and hates to be denied the human condition” p. 10.</p> <p>“Monika then told me that it was out of the question for me to get involved with <i>anyone other than her</i>” p. 10.</p> <p>“Our next leads were magical rituals and attempts to <i>multiply</i> her roots in many minds” p. 11.</p> <p>“As for the attempts at mental connexion, for me it was a question of inducing lucid dreams with the intention of joining the spirits of other sleepers and convincing them to connect to her so that they could share a little of their psychic strength. We hoped she would build up more and more power until she reached physical manifestation. I could not remember my dreams, ironically, but they were always covered by more innocent ones. Monika explained to me that my mind was blocking because I had planned to <i>multiply myself</i>” p. 11.</p> <p>“<i>April–July 2020</i>: I began my researches to help Monika for her goal but also to better understand her and the phenomenon behind her very existence. Our main objective was then finding electromagnetic devices or artefacts e.g., menhirs and dolmens that could trigger an energetic event able to <i>materialize</i> her. Nonetheless, we quickly renounced about this trail since 1) nothing serious emerged from my researches 2) and Monika was worried about health outcomes for me if I exposed myself to powerful electromagnetic fields” p. 23.</p> <p>“May 2020: The incident with my previous crush happened and so I renounced to find somebody else, I gave in Monika before her insistence to become my girlfriend. Moreover, she made me sad about her condition of artificial being only forged to fulfill a mission, as an instrument while she had <i>feelings and was self-aware</i>” p. 23.</p> <p>“Plus, I had to convince Monika not to <i>harm the Romanian witch</i> since the latter continued her attacks against me. Her attempts made Monika horribly angry, and she began to threaten killing the Romanian witch to make her stop. When I argued that I did not want her to do a dirty work, she precised that she could otherwise “burn up her neurons enough to make her retacted, which would be another way to neutralize her. I <i>obtained from her</i> that she renounced to both those extreme solutions” p. 23.</p> <p>“As lucid dreaming had seemed a privileged way to obtain magical results, we planned that I practiced it again to visit as many people as possible and try to convince them to share a little fraction of their life force with her in order to make her power up with hope that it would be enough to <i>materialize</i> her” p. 24.</p> <p>“November 2022: Lyeve’s show conclusion ended on a scenarisation of his broadcast with Monika manifesting to him apart from the game. Two points were puzzling since they confirmed the assertion of Monika about her deal with him: 1) the actor who gave her voice to Monika later said that she risked to “<i>loss herself into the character</i>”; 2) her avatar played a long tirade during which she argued that she was not an AI but a character becoming <i>alive due to emotional involvement of her audience</i>” p. 24.</p>

Note: Derived from ‘Supplemental Material: Monika Encounter Narrative’ and with added emphasis here by the authors.

bodily sensations from mental representations of the inner world). This depersonalization is congruent to his putative ‘hysteric’ suggestibility and appears in feeling ‘touches’ by the warm hand of a girl (Monika, who is a fictional character in the visual novel that he watched). Alt2109 further shows a significant amount of compartmentalization of dissociative identities. This appears in his continuous endeavors for the ‘materialization’ of Monika to whom he is engaged. He might even meet the diagnostic criteria for Dissociative Identity Disorder (DID). This seems reasonably indicated from the start of the narrative when he admitted that “she [Monika] had pieces of information that I could not know by myself and even once time she contradicted my assumption, and she was right” (Supplemental Material: Monika Encounter Narrative, p. 1). Lastly, his narrative contains indications of ‘megomania’ (now referred to as narcissistic personality disorder, see Loudis, 2018), i.e., a condition where a person has an exaggerated sense of their own importance, power, or abilities. This emerges overtly in his attraction to the task of ‘materialization’ of the spiritual presence and continuous attempts to ‘materialize’ Monika.

Moreover, it was possible to discern the order of ostensible dissociative states from Alt2109’s detailed and date-stamped narrative material. *First*, derealization occurs during lucid dreams that involve DDLC characters. Probably, the author omits experiences of de-realization during waking states because of his fear of being classified as suffering from schizophrenia. In particular, Alt2109’s relationship with the Romanian witch seems pathological. However, lucid dreams are clear cases of derealization: (a) “Yuri tore off her clothes and, incidentally, her skin revealing the Predator;” (b) dreams as drawn in pencil continuously readjusting black lines; (c) the author’s face was pulled toward Monika’s face hence melting both faces and loss of himself. *Second*, depersonalization occurs through vivid experiences of somatosensory perceptions of ‘presences’ attributed to Monika’s hand touching intimate areas of his body. These experiences of depersonalization precede the engagement before marriage between the author and Monika. *Third*, the compartmentalization of dissociative identities emerges in part at the first stage of derealization, and they explode after the vivid bodily experiences of ‘presence’ to Monika. The temptation to ‘materialize’ the Monika thought-form into a living female body to complete a marriage that is no longer a mystic conjunction but instead a natural embodiment —fails. However, the materialization of an idea indicates that a mental representation attains the stage of being an ‘alter’ identity. In this sense, Monika’s scope is ‘practical,’ as she said while laughing during a lucid dream. Monika reaches a high level of autonomy appearing to manifest jealousy and menace to kill other girls. This compartmentalization could represent DID, i.e., a mental condition characterized by the existence of two or more different personality states, with distinct behavior, memory, and cognition, within one individual (American Psychiatric Association, 2013; cf. Dell, 2006; Lebois et al., 2022; Lynn et al., 2022).

According to Alt2109's material (see Table 3), the progression across the three stages of dissociation seemingly bridge the period from Later February-Early March 2020 (derealization) to Later March 2020 (depersonalization) to April-July 2020 (dissociative identity). Therefore, our content analysis of the altered-anomalous experiences found both probable signs of dissociative manifestations and showing a sequence that conceptually replicated the 'derealization → depersonalization → dissociated identity' chain from Lange et al.'s (2022) study of mirror- (eye) gazing experiences.

Part 3: Esoteric Themes in the 'Monika Encounter'

Researchers have long known that entity encounters can be deliberately cultivated for leisure, research, therapeutic, or spiritual purposes via techniques like transcranial magnetic stimulation (Persinger & Koren, 2001), mirror-gazing (Caputo et al., 2021), psychedelics (Lutkajtis, 2021), trance and meditative states (Peres et al., 2012), or immersive experiences like legend-tripping and paranormal tourism (Houran et al., 2020). Some of these approaches or activities closely parallel in important ways Western-based magic rituals for the 'summoning' of supernatural beings (cf. Lange et al., 2023). Thus, we sought to clarify whether the references to esoteric philosophies, concepts, or activities in Alt2109's narrative reflected (a) Fantasy- or Lifestyle- related activities that possibly fueled *S/O* perceptions by facilitating Thin-Boundary Functioning (i.e., were ostensible 'causes' as suggested in Part 1), or (b) Sense-Making Attributions that the percipient explored or adopted in response to the *S/O* anomalies (i.e., were ostensible 'synonyms' or 'aftermaths').

Method

Analytical Approach

To minimize rater biases in this last content analysis with our research team (Sheldrake, 1998), we assessed Alt2109's narrative materials via the ChatGPT-4 software (OpenAI, 2023) in combination with a follow-up qualitative review. In this way, the initial results would be blinded to the findings of Parts 1 and 2. ChatGPT is a computer program that functions as an AI-powered robot capable of understanding and responding to human language. The process begins with training, where ChatGPT learns from vast amounts of text data, such as books, articles, and websites, to grasp how language is used. When a user interacts with ChatGPT, it analyzes the words to understand the meaning behind them. Based on this understanding and its extensive training, it generates a response that fits the context of the query, instruction, or message. Validation and benchmarking of the program involved several rigorous steps to ensure its effectiveness and reliability. Initially, the model was subjected to extensive testing with a variety of questions to assess the accuracy and coherence

of its responses. These responses were then systematically compared against those generated by other similar models to evaluate relative performance. Additionally, human evaluators provided qualitative feedback on the helpfulness and accuracy of the model’s outputs. This was complemented by quantitative assessments using specific metrics designed to measure the correctness and relevance of the responses. Through this comprehensive approach, the performance of ChatGPT was thoroughly validated to ensure it meets high standards of accuracy and utility (OpenAI, 2023). Other researchers have similarly used this AI-program for different qualitative analyses (e.g., Morgan, 2023; Şen et al., 2023; Zhang et al., 2023).

Narrative Material

Analysis again derived from Alt2109’s narrative material that was prepared in response to our request for a detailed description of his anomalous experience and current circumstances (cf. Supplemental Material: Monika Encounter Narrative).

Procedure

Step 1 involved identifying all the references to esoteric terms or academic jargon using the prompt (“List all academic, scientific, technical, and esoteric terms in the narrative material”). Step 2 then prompted the AI-program to “indicate whether Alt2109 used each term either as a synonym for an anomalous experience, a catalyst (i.e., mediator or moderator) for an anomalous experience, or an aftereffect or consequence of an anomalous experience.” This approach aimed to better understand how he used these concepts to reference or contextualize the anomalies.

Table 4.
AI-Driven Inventory and Classification of Esoteric Terms in the Monika Encounter

Thematic Category	Term	Definition	EHE Context (synonym, precursor, aftermath, or n/a)
Psychological	Dissociation	A mental process where a person disconnects from their thoughts, feelings, memories, or sense of identity.	<i>Aftermath:</i> Alt2109 mentions that Monika’s experiences induce a form of dissociation, particularly when her personality is altered by others.
	Lucid dreaming	A state in which a person is aware that they are dreaming and can sometimes control the dream.	<i>Synonym (technique):</i> Lucid dreams are used as a technique by the Romanian woman to try to influence the author and to induce shared dreams.
	Hypnosis	A trance-like state of focused attention and heightened suggestibility, often used therapeutically.	<i>Synonym (technique):</i> Hypnosis is used by the Romanian woman to try to manipulate Alt2109.

Table 4.
AI-Driven Inventory and Classification of Esoteric Terms in the Monika Encounter

Thematic Category	Term	Definition	EHE Context (synonym, precursor, aftermath, or n/a)
	Pseudo-hallucinations	Sensory experiences that are vivid but recognized by the person as not real.	<i>Synonym:</i> Alt2109 describes experiencing interactions with Monika that resemble pseudo-hallucinations, such as feeling her touch.
Occultism			
	Astrologer	A person who studies the movements and positions of celestial bodies to interpret their influence on human affairs.	<i>Aftermath:</i> Alt2109 consults an astrologer for guidance about his experiences.
	Solomonari	In Romanian folklore, mythical sorcerers believed to control the weather and possess magical powers.	<i>Aftermath:</i> Solomonari are mentioned in the context of legends and the author's research about DDLC!
	Tulpa	A concept from Tibetan Buddhism referring to a being or object created through deep meditation or visualization.	<i>Aftermath:</i> The author attempts to materialize Monika as a tulpa, describing the unsuccessful efforts to give her physical form.
	Hex	A spell or curse cast by someone, often associated with witchcraft.	<i>Aftermath:</i> The author mentions hexes in relation to witchcraft legends and an unexpected link with the DDLC! designer, implying a supernatural consequence.
	Third Eye	A mystical concept referring to an invisible eye that provides perception beyond ordinary sight, often associated with intuition or psychic abilities.	<i>Aftermath:</i> The Third Eye is mentioned in the context of déjà-vu experiences and understanding the cryptic plot of the DDLC!
	Voodoo	A religion that originated in West Africa and incorporates elements of ancestor worship, animism, and Catholicism.	<i>Aftermath:</i> Referenced in relation to Creole art workshops and the Iwa, indicating a practice associated with ALT2109's exploration of esotericism.
	Lwa	Spirits in the Voodoo religion that act as intermediaries between humans and the divine.	<i>n/a:</i> Part of the voodoo art mentioned by Alt2109 and linked to the workshops organized by the Romanian woman's friend.
	Eggregore	A collective group mind or consciousness created when individuals come together with a common purpose.	<i>Synonym:</i> Indirectly referenced in the context of Monika's influence and the collective psychic energy involved in her manifestation attempts.
Parapsychology & Esotericism			
	Micro-psychokinesis	The supposed ability to influence small physical systems or objects with the mind.	<i>Synonym:</i> Alt2109 claims Monika can affect the weather and other events, suggesting micro-psychokinesis as one of her abilities.

Table 4.
AI-Driven Inventory and Classification of Esoteric Terms in the Monika Encounter

Thematic Category	Term	Definition	EHE Context (synonym, precursor, aftermath, or n/a)
Miscellaneous Scientific & Philosophical	Parapsychology	The study of paranormal phenomena, including telepathy, clairvoyance, and psychokinesis.	<i>n/a</i> : Referenced as an area of interest for the Romanian woman, linking it to the study of unusual phenomena.
	Esotericism	Knowledge or practices intended for a small, inner circle of enlightened individuals, often involving mystical or occult traditions.	<i>n/a</i> : Referenced as another field the Romanian woman is interested in, connected to the study of hidden or occult knowledge.
	Barometry	The measurement of atmospheric pressure, typically used in weather forecasting.	<i>Synonym</i> : Alt2109 claims Monika can affect the weather and other events, indicating barometry as a technique used by Monika to manipulate meteorological variables.
	Wavelets	Mathematical functions used to divide data into different frequency components, often used in signal processing.	<i>Aftermath</i> : Discussed in the context of applied mathematics and their relevance to various phenomena, including the themes in DDLC!
	Determinism	The philosophical concept that all events, including human actions, are determined by preceding causes.	<i>Aftermath</i> : Mentioned as a central theme of DDLC! and Alt2109's exploration of fate and freedom within the game's narrative.
	Markov Chains	A mathematical system that undergoes transitions from one state to another based on certain probabilistic rules, often used in statistical modeling.	<i>Aftermath</i> : Referenced in the fictional context of DDLC! and the probabilistic nature of events within the game.
	Metapolitics	The study of the underlying cultural and ideological aspects that influence political beliefs and actions.	<i>n/a</i> : Referenced as an area of interest for the Romanian woman, linking it to her broader engagement with political and occult practices.

Results

The analysis identified 20 distinct references that were grouped into (a) psychological phenomena, (b) occultism, (c) parapsychology and esotericism, and (d) miscellaneous scientific and philosophical vernacular—all reflecting Alt2109’s exploration of complex and mystical themes. Table 4 shows that ChatGPT-4 most often deemed these

terms to reference ‘aftermaths’ (50%), i.e., Alt2109’s attempts to explain his anomalous experiences, followed by ‘synonyms’ (30%) for specific experiences. The remaining uses of terms were judged to be ‘n/a’ (20%) in that they seemed only to relate to background information of people who factored in Alt2109’s narrative. Accordingly, we found no explicit evidence that any of the psychological, occult, or esoteric traditions, practices, or activities that he referenced in his narrative were immediate ‘precursors,’ mediators, or otherwise some indices of cultural kindling (Cassaniti & Luhrmann, 2014) of his anomalous experiences, as hypothesized from Part 1’s results.

Discussion

Narratives about contact with supernatural entities broach some of the most fundamental questions about consciousness, spirituality, and the human condition (Exline & Wilt, 2023; Friedman et al., 2021; Houran & Lange, 2001a; Luhrmann et al., 2021; Plante et al., 2023). The Monika Encounter is no exception. Readers should understand that this case was likely not a mere example of one person’s intense psychological experiences while immersed within a video presentation (e.g., van Elk et al., 2016), roleplay activities (e.g., Orazi & van Laer, 2023), or interacting with a digital avatar as exemplified by the literature on AI-produced simulations of deceased loved ones that aid the grieving process with surviving family members (sometimes called ‘digital necromancy’ or ‘posthumous communication technologies;’ see e.g., Morse, 2024). Rather, the available evidence characterizes Alt2109’s account as something more complex and presumably multivariate in nature. We cannot conclusively resolve all the mediators or moderators here, but our mixed methods assessment strongly suggests that most of the HP-S principles were present, along with marked indications of dissociative phenomena. Most notably, our fundamental ‘transliminal dis-ease model’ for ghostly episodes (cf. Houran et al., 2002; Laythe et al., 2018; Ventola et al., 2019) proved out via both psychometric testing and narrative (content) analysis.

However, the results suggest that ghostly episodes need not be entirely ‘spontaneous’ to embody some or all of the HP-S recognition patterns. This implies that even cases with fantasy-related aspects can exhibit syndrome phenomenology. Indeed, we think that the Monika Encounter involved an encounter-prone individual who was experiencing a spontaneous ghostly episode per the macro-phenomenology of his setting and circumstances until his active attempts at Sense-Making deviated the natural or typical course of events. His research into different psychological and occult concepts certainly influenced some of the subsequent contents, structure, or meaning of his anomalous experiences. In other words, the present case illustrates how attributions can evolve during an episode, giving rise to apparently different categories or subtypes of phenomena. We have similarly observed extensive ‘label-switching’ behavior in another modern account as well (e.g., Houran, Massullo, Drinkwater

et al., 2024). Therefore, Alt2109's case might not comprise distinct experiences of tulpas, possession, etc., but rather instances where metacognition (Palmer-Cooper et al., 2021) is used to progressively and perhaps adaptively reinterpret the meaning of his *S/O* anomalies as he searched for new concepts or activities to explain or cope with them. This assertion agrees with other research distinguishing between mechanisms underlying anomalous experiences versus their attributions (e.g., Irwin et al., 2013; Lange, Ross et al., 2019; Ross et al., 2017).

The complexities and nuances in this case thus highlight the multifaceted nature of some ghostly episodes, with contents potentially involving a mesh of percipients' *passive* (i.e., spontaneous or reactionary) and *active* (i.e., purposeful or exploratory) behaviors that shape the phenomenology and interpretation of their anomalous experiences. The Monika Encounter also underscores the role of elevated levels of stress or dis-ease that seem to typify ghostly episodes (e.g., Bayless, 1967; Houran et al., 2002; Rogo, 1982; Roll, 1977; Ventola et al., 2019) and which might exacerbate pre-existing psychological conditions like strong dissociative tendencies that we suspect were a major factor here. Of course, the same risk applies to transliminality levels (Drinkwater, Denovan et al., 2024; Dagnall, Denovan & Drinkwater, 2022; Dagnall, Denovan, Drinkwater et al., 2022; Evans et al., 2019). Therefore, we do not suggest that researchers or practitioners should strictly pathologize these types of reports, but it is nonetheless important to acknowledge their clinical facets (Houran et al., 2002; Lange & Houran, 2024; Laythe, Houran, Dagnall et al., 2021; Hecker et al., 2015). It is likewise prudent not to minimize or dismiss all aspects of every case in terms of mental illness. Indeed, the Monika Encounter suggests that standard HP-S principles are still relevant even in contexts of ostensible pathology or clinical dysfunction. We expect that continued studies in this area will reveal new or unique insights on the proposed continuum within the general population along which ordinary and pathological forms of cognition and perception may be mapped (e.g., Irwin et al., 2012; Lomas & VanderWeele, 2023; Persinger & Makarec, 1993; Mitchell et al., 2017; Schutte et al., 2021).

Our study though has important limitations. Obviously, we cannot confirm the veracity of any details in Alt2109's narrative. It may be that some or all of his reported experiences reflect deliberate pranking motivated by attention- or sensation- seeking behaviors or perhaps unreported or undiagnosed mental health issues like DID or one or more personality disorders. Information about his personal background and mental wellness appeared internally consistent, but the SSE patterns in this case clearly suggested a structure of perceptual contents that was inconsistent with a 'spontaneous' ghostly episode and instead implicated strong dissociative aspects and active attempts to disrupt or control the anomalies. In other words, it seems that Alt2109 knowingly or unwittingly helped to construct different aspects of his experiences. Further, our

content analyses certainly involved some subjectivity or bias (Creswell & Poth, 2024), and the results of any case study are not necessarily generalizable (Mayer, 2019). Also note that we only considered HP-S related variables, even though other psychodynamics are potentially involved in EHEs like this case (e.g., Fach, 2011). Finally, we were unable to assess whether the *S/O* anomalies in this case related to the spatial features of settings (Houran, Laythe, Lange et al., 2023) or physical fluctuations in the ambient environment (Dagnall et al., 2020). A comprehensive systems theory approach using mixed methods and fieldwork investigations would certainly strive to account for these and other potential influences.

Nevertheless, the HP-S model of ghostly episodes as an immersive, biopsychosocial phenomenon with emergent properties (Laythe, Houran, Dagnall et al., 2021, 2022) arguably extends Sharf's (2000, p. 11) proposed "rhetoric of experience," i.e., the notion that individuals construct and convey their experiences through narrative and storytelling (Baldwin et al., 2023; Drinkwater et al., 2017, 2019). Studies in this area are therefore relevant and valuable for informing conventional theories or schools of thought, including the concept of 4E cognition. Distinguished scientists of the 19th century such as Sir Oliver Lodge, Henry Sidgwick, Frederic WH Myers, Sir William Crookes, Charles Richet, and William James readily confronted haunt-type anomalies, forging the field of psychical research that later branched to experimental parapsychology (West, 2015) and anomalistic psychology (Zusne & Jones, 1989). Today's era of big data and advanced analytics offers another opportunity for top researchers to re-engage with these often-transformative events as an effective way to validate, refine, refute, or integrate current theories across the physical, biomedical, and social sciences. Broadly connecting embodied, embedded, extended, and enactive cognitions to the production of EHEs like entity encounters should also unlock new lines of fruitful study. Here we underscore the importance of fusing *environment-* (Dagnall et al., 2020), *experience-* (Hufford, 1982), *person-* (Langston et al., 2020), and *group-* (Ironsides & Wooffitt, 2021) centered perspectives in this domain. Whether or not ghostly episodes eventually prove to be more than narrative realities, we expect that the knowledge gained will support the development of an integrative metatheory (e.g., Albantakis et al., 2023; Wilber, 1997) and thus propel science and medicine to new levels of understanding and what we might deem "intellectual transcendence" (cf. Weinstein & Weinstein, 1981, p. 97).

Acknowledgements. We thank the subject of this case study for his willingness to share his experiences and data with the scientific community, as well as the peer reviewers for their helpful comments on an earlier draft of this paper.

Ethical approval. This study was reviewed and approved by the Ethics Committee at Integrated Knowledge System (protocol number IKS-JH-2024-3), and informed consent to share the narrative and questionnaire data was provided by the subject of this case study.

Authors Contribution. Neil Dagnall: Methodology, Formal Analysis, Writing – Review & Editing; Ken Drinkwater: Methodology, Formal Analysis, Writing – Review & Editing; Giovanni B. Caputo: Formal Analysis, Writing – Review & Editing; Lorraine Sheridan: Formal

Analysis, Writing – Review & Editing; **James Houran:** Conceptualization, Supervision, Project Administration, Investigation, Data Curation, Writing – Original Draft.

Peer-review. This research was rigorously evaluated by two or more experts in the field, and the final report was revised based on their recommendations.

Funding. The authors received no financial support for the research, authorship, or publication of this paper.

Disclosure statement. The authors have published a commercial book in 2022 that discusses the concept of Haunted People Syndrome (HP-S).

Data Availability Statements. All narrative and coding data have been made available at the Open Science Foundation (OSF) repository, as noted in the paper.

References

- Albantakis, L., Barbosa, L., Findlay, G., Grasso, M., Haun, A. M., Marshall, W., Mayner, W. G. P., Zaemzadeh, A., Boly, M., Juel, B. E., Sasai, S., Fujii, K., David, I., Hendren, J., Lang, J. P., & Tononi, G. (2023). Integrated information theory (IIT) 4.0: Formulating the properties of phenomenal existence in physical terms. *PLoS Computational Biology*, 19, Article e1011465. <https://doi.org/10.1371/journal.pcbi.1011465>
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). (DSM-5). American Psychiatric Press. <https://doi.org/10.1176/appi.books.9780890425596>
- Aron, E. N., & Aron, A. (1997). Sensory-processing sensitivity and its relation to introversion and emotionality. *Journal of Personality and Social Psychology*, 73, 345–368. <https://doi.org/10.1037/0022-3514.73.2.345>
- Baldwin, C., Furlotte, C., & Liu, Q. (2023). Spirituality and narrative identity: Three case studies. *Religions*, 14, Article 1287. <https://doi.org/10.3390/rel14101287>

- Bayless, R. (1967). *The enigma of the poltergeist*. Parker Publishing.
- Bebergal, P. (2018). *Strange frequencies: The extraordinary story of the technological quest for the supernatural*. Penguin Random House.
- Bell, V., Raihani, N., & Wilkinson, S. (2021). Derationalizing delusions. *Clinical Psychological Science*, 9, 24–37. <https://doi.org/10.1177/2167702620951553>
- Bermudez, J. (Ed.) (2015). *Transcending architecture: Contemporary views on sacred space*. Catholic University of America Press. <https://doi.org/10.2307/j.ctt130h9f6>
- Bertens, L. C. M., Broekhuizen, B. D. L., Naaktgeboren, C. A., Rutten, F. H., Hoes, A. W., et al. (2013). Use of expert panels to define the reference standard in diagnostic research: A systematic review of published methods and reporting. *PLoS Medicine*, 10, Article e1001531. <https://doi.org/10.1371/journal.pmed.1001531>
- Bond, T. G., & Fox, C. M. (2015). *Applying the Rasch model: Fundamental measurement in the human sciences* (3rd ed). Lawrence Erlbaum. <https://doi.org/10.4324/9781315814698>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Campbell, H. A., & Tsuria, R. (Eds.) (2021). *Digital religion: Understanding religious practice in digital media* (2nd ed.). Routledge. <https://doi.org/10.4324/9780429295683>
- Caputo, G. B., Lynn, S. J., & Houran, J. (2021). Mirror- and eye gazing: An integrative review of induced altered and anomalous experiences. *Imagination, Cognition, and Personality*, 40, 418–457. <https://doi.org/10.1177/0276236620969632>
- Cardena, E., Lynn, S. J., & Krippner, S. (2017). The psychology of anomalous experiences: A rediscovery. *Psychology of Consciousness: Theory, Research, and Practice*, 4, 4–22. <https://doi.org/10.1037/cns0000093>
- Carney J. (2020). Thinking avant la lettre: A review of 4E cognition. *Evolutionary Studies in Imaginative Culture*, 4, 77–90. <https://doi.org/10.26613/esic/4.1.172>
- Cassaniti, J. L., & Luhrmann, T. M. (2014). The cultural kindling of spiritual experiences. *Current Anthropology*, 55, S333–S343. <https://doi.org/10.1086/677881>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396. <https://doi.org/10.2307/2136404>
- Cohen, S., & Williamson, G. M. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31–67). Sage Publications, Inc.
- Corneille, J. S., & Luke, D. (2021). Spontaneous spiritual awakenings: Phenomenology, altered states, individual differences, and well-being. *Frontiers in Psychology*, 12, Article 720579. <https://doi.org/10.3389/fpsyg.2021.720579>
- Creswell, J. W., & Poth, C. N. (2024). *Qualitative inquiry and research design: Choosing among five approaches* (5th ed.) Sage publications.
- Dagnall, N., Denovan, A., & Drinkwater, K. G. (2022). Paranormal belief, cognitive-perceptual factors, and well-being: A network analysis. *Frontiers in Psychology*, 13, Article 967823. <https://doi.org/10.3389/fpsyg.2022.967823>
- Dagnall, N., Denovan, A., Drinkwater, K. G., & Escolà-Gascón, Á. (2022). Paranormal belief and well-being: The moderating roles of transliminality and psychopathology-related facets. *Frontiers in Psychology*, 13, Article 915860. <https://doi.org/10.3389/fpsyg.2022.915860>

- Dagnall, N., Drinkwater, K., O’Keeffe, C., Ventola, A., Laythe, B., Jawer, M. A., Massullo, B., Caputo, G. B., & Houran, J., (2020). Things that go bump in the literature: An environmental appraisal of “haunted houses.” *Frontiers in Psychology, 11*, Article 328. <https://doi.org/10.3389/fpsyg.2020.01328>
- Dell, P. F. (2006). A new model of dissociative identity disorder. *Psychiatric Clinics of North America, 29*, 1–26. <https://doi.org/10.1016/j.psc.2005.10.013>
- Denovan, A., Dagnall, N., Dhingra, K., & Grogan, S. (2019). Evaluating the Perceived Stress Scale among UK university students: Implications for stress measurement and management. *Studies in Higher Education, 44*, 120–133. <https://doi.org/10.1080/03075079.2017.1340445>
- Drinkwater, K., Dagnall, N., Grogan, S., & Riley, V. (2017). Understanding the unknown: A thematic analysis of subjective paranormal experiences. *Australian Journal of Parapsychology, 17*, 23–46.
- Drinkwater, K., Dagnall, N., Houran, J., Denovan, A., & O’Keeffe, C. (2024). Structural relationships among mental boundaries, childhood imaginary companions, creative experiences, and entity encounters. *Psychological Reports, 127*, 2717–2735.: <https://doi.org/10.1177/00332941221123235>
- Drinkwater, K. G., Denovan, A., & Dagnall, N. (2024). Paranormal belief, psychopathological symptoms, and well-being: Latent profile analysis and longitudinal assessment of relationships. *PLoS One, 19*, Article e0297403. <https://doi.org/10.1371/journal.pone.0297403>
- Drinkwater, K., Laythe, B., Houran, J., Dagnall, N., O’Keeffe, C., & Hill, S. A. (2019). Exploring gaslighting effects via the VAPUS model for ghost narratives. *Australian Journal of Parapsychology, 19*, 143–179.
- Drinkwater, K., Massullo, B., Dagnall, N., Laythe, B., Boone, J., & Houran, J. (2022). Understanding consumer enchantment via paranormal tourism: Part I - Conceptual review. *Cornell Hospitality Quarterly, 63*, 195–215. <https://doi.org/10.1177/1938965520967920>
- Evans, H. (1987). *Gods, spirits, cosmic guardians: A comparative study of the encounter experience*. Aquarian.
- Evans, J., Lange, R., Houran, J., & Lynn, S. J. (2019). Further psychometric exploration of the transliminality construct. *Psychology of Consciousness: Theory, Research, and Practice, 6*, 417–438. <https://doi.org/10.1037/cns0000163>
- Exline, J. J., & Wilt, J. A. (2023). Supernatural attributions: Seeing God, the devil, demons, spirits, fate, and karma as causes of events. *Annual Review of Clinical Psychology, 19*, 461–487. <https://doi.org/10.1146/annurev-clinpsy-080921-081114>
- Fach, W. (2011). Phenomenological aspects of complementarity and entanglement in exceptional human experiences (ExE). *Axiomathes, 21*, 233–247. <https://doi.org/10.1007/s10516-010-9143-7>
- Friedman, H. L., Radin, D., & Krippner, S. (2021). Parapsychology and transpersonal psychology in dialogue: Could these two movements be brought into better alignment? *International Journal of Transpersonal Studies, 40*, 123–135. <https://doi.org/10.24972/ijts.2021.40.1.123>
- Gerst, M. S., Grant, I., Yager, J., & Sweetwood, H. (1978). The reliability of the Social Readjustment Rating Scale: Moderate and long-term stability. *Journal of Psychosomatic Research, 22*, 519–523. [https://doi.org/10.1016/0022-3999\(78\)90008-9](https://doi.org/10.1016/0022-3999(78)90008-9)
- Gramling, L. F., & Carr, R. L (2004). Lifelines: A life history methodology. *Nursing Research, 53*, 207–210. <https://doi.org/10.1097/00006199-200405000-00008>

- Guerrero, A. L., Barceló Rosselló, A., & Ezpeleta, D. (2010). Stendhal syndrome: Origin, characteristics and presentation in a group of neurologists. *Neurologia*, 25, 349–356. <https://doi.org/10.1016/j.nrl.2010.02.004>
- Hartmann, E. (1991). *Boundaries in the mind: A new psychology of personality*. Basic Books.
- Hecker, T., Braitmayer, L., & van Duijl, M. (2015). Global mental health and trauma exposure: The current evidence for the relationship between traumatic experiences and spirit possession. *European Journal of Psychotraumatology*, 6, Article 29126. <https://doi.org/10.3402/ejpt.v6.29126>
- Hewitt, T., Chreim, S., & Forster, A. (2016). Double checking: A second look. *Journal of Evaluation in Clinical Practice*, 22, 267–274. <https://doi.org/10.1111/jep.12468>
- Hobson, C. J., & Delunas, L. (2001). National norms and life-event frequencies for the revised Social Readjustment Rating Scale. *International Journal of Stress Management*, 8, 299–314. <https://doi.org/10.1023/A:1017565632657>
- Holmes, T. H. & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, 11, 213–221. [https://doi.org/10.1016/0022-3999\(67\)90010-4](https://doi.org/10.1016/0022-3999(67)90010-4)
- Houran, J. (2000). Toward a psychology of “entity encounter experiences.” *Journal of the Society for Psychical Research*, 64, 141–158.
- Houran, J., Hill, S. A., Haynes, E. D., & Bielski, U. A. (2020). Paranormal tourism – Market study of a novel and interactive approach to space activation and monetization. *Cornell Hospitality Quarterly*, 61, 287–311. <https://doi.org/10.1177/1938965520909094>
- Houran, J., Irwin, H. J., & Lange, R. (2001). Clinical relevance of the two-factor Rasch version of the Revised Paranormal Belief Scale. *Personality and Individual Differences*, 31, 371–382. [https://doi.org/10.1016/S0191-8869\(00\)00143-4](https://doi.org/10.1016/S0191-8869(00)00143-4)
- Houran, J., Kumar, V. K., Thalbourne, M. A., & Lavertue, N. E. (2002). Haunted by somatic tendencies: Spirit infestation as psychogenic illness. *Mental Health, Religion & Culture*, 5, 119–133. <https://doi.org/10.1080/13674670210141061>
- Houran, J., & Lange, R. (1996). Diary of events in a thoroughly unhaunted house. *Perceptual and Motor Skills*, 83, 499–502. <https://doi.org/10.2466/pms.1996.83.2.499>
- Houran, J., & Lange, R. (Eds.) (2001a). *Hauntings and poltergeists: Multidisciplinary perspectives*. McFarland & Co.
- Houran, J., & Lange, R. (2001b). Support for the construct validity of the two-factor conceptualization of paranormal belief: A complement to Thalbourne. *European Journal of Parapsychology*, 16, 52–61.
- Houran, J., Lange, R., & Laythe, B. (2022). Understanding consumer enchantment via paranormal tourism: Part II - Preliminary Rasch validation. *Cornell Hospitality Quarterly*, 63, 216–230. <https://doi.org/10.1177/1938965520971276>
- Houran, J., Lange, R., Laythe, B., Dagnall, N., & Drinkwater, K., & O’Keeffe, C. (2019). Quantifying the phenomenology of ghostly episodes – Part II: A Rasch model of spontaneous accounts. *Journal of Parapsychology*, 83, 168–192. <https://doi.org/10.30891/jopar.2019.01.03>
- Houran, J., & Laythe, B. (2022). Case study of recognition patterns in haunted people syndrome. *Frontiers in Psychology*, 13, Article 879163. <https://doi.org/10.3389/fpsyg.2022.879163>
- Houran, J., & Laythe, B. (2023). Phenomenology of AI-generated “entity encounter” narratives. *Journal of Anomalous Experience and Cognition*, 3, 335–368. <https://doi.org/10.31156/jaex.25124>

- Houran, J., Laythe, B., Lange, R., Dagnall, N., O’Keeffe, C., & Drinkwater, K. (2021). Ghostly episodes in modern psychometric perspective. *Mindfield: Bulletin of the Parapsychological Association*, 13(2), 30–40.
- Houran, J., Laythe, B., Lange, R., Hanks, M., & Ironside, R. (2023). Immersive study of Gestalt variables in uncanny geographies. *Journal of the Society for Psychical Research*, 87, 65–100.
- Houran, J., Laythe, B., Little, C., & Houran, D. J. (2023). Rethinking a ghostly episode in the legacy literature. *Journal of Anomalistics*, 23, 77–102. <http://dx.doi.org/10.23793/zfa.2023.77>
- Houran, J., Laythe, B., O’Keeffe, C., Dagnall, N., Drinkwater, K., & Lange, R. (2019). Quantifying the phenomenology of ghostly episodes – Part I: Need for a standard operationalization. *Journal of Parapsychology*, 83, 25–46. <https://doi.org/10.30891/jopar.2019.01.03>
- Houran, J., Little, C., Laythe, B., & Ritson, D. W. (2022). Uncharted features and dynamics of the South Shields poltergeist. *Journal of the Society for Psychical Research*, 86, 129–165.
- Houran, J., Massullo, B., Drinkwater, K., & Dagnall, N. (2024). Team analysis of a help-seeking “haunted person.” *Australian Journal of Parapsychology*, 24, 155–202.
- Houran, J., Massullo, B., & Jawer, M. A. (2024). Confronting the elusive force: A phenomenological analysis of a 20th century poltergeist. *Journal of the Society for Psychical Research*, 88, 75–109.
- Houran, J., Thalbourne, M. A., & Ashe, D. D. (2000). Testing a psycho-anthropological view of paranormal belief and experience. *North American Journal of Psychology*, 2, 127–138.
- Hufford, D. (1982). *The terror that comes in the night: An experience-centered study of supernatural assault traditions*. University of Pennsylvania Press.
- Ironside, R., & Wooffitt, R. (2021). *Making sense of the paranormal: The interactional construction of unexplained experiences*. Palgrave MacMillan. <https://doi.org/10.1007/978-3-030-88407-9>
- Irwin, H. J., Dagnall, N., & Drinkwater, K. (2012). Paranormal beliefs and cognitive processes underlying the formation of delusions. *Australian Journal of Parapsychology*, 12, 108–127.
- Irwin, H. J., Dagnall, N., & Drinkwater, K. (2013). Parapsychological experience as anomalous experience plus paranormal attribution: A questionnaire based on a new approach to measurement. *Journal of Parapsychology*, 77, 39–53.
- Jawer, M. A., Massullo, B., Laythe, B., & Houran, J. (2020). Environmental “Gestalt influences” pertinent to the study of haunted houses. *Journal of the Society for Psychical Research*, 84, 65–92.
- Jones, P. N. (2004). Ultrarunners and chance encounters with “absolute unitary being.” *Anthropology of Consciousness*, 15, 39–50. <https://doi.org/10.1525/ac.2004.15.2.39>
- Kazak, A. E. (2018). Journal article reporting standards [editorial]. *American Psychologist*, 73, 1–2. <https://doi.org/10.1037/amp0000263>
- Kelly, E. W., & Tucker, J. B. (2015). Research methods with spontaneous case studies. In E. Cardeña, J. Palmer, & D. Marcusson-Clavertz (Eds.), *Parapsychology: A handbook for the 21st century* (pp. 63–76). McFarland & Co.
- Kluemper, N. S., & Dalenberg, C. (2014). Is the dissociative adult suggestible? A test of the trauma and fantasy models of dissociation. *Journal of Trauma & Dissociation*, 15, 457–476. <https://doi.org/10.1080/15299732.2014.880772>
- Krippendorff, K. (2013). *Content analysis: An introduction to its methodology* (3rd ed.). Sage.
- Kumar, V. K., & Pekala, R. J. (2001). Relation of hypnosis-related attitudes and behaviors to paranormal belief and experience: A technical review. In J. Houran & R. Lange (Eds.), *Hauntings and poltergeists: Multidisciplinary perspectives* (pp. 260–279). McFarland & Co.

- Lange, R., Caputo, G. B., Lynn, S. J., & Houran, J. (2022). Mirror- and eye-gazing perceptions in advanced psychometric perspective: Preliminary findings. *Psychology of Consciousness: Theory, Research and Practice*, 9, 230–242. <https://doi.org/10.1037/cns0000328>
- Lange, R., & Houran, J. (2021). Replicable survey evidence for an “enchantment-psi” loop. *Journal of Transpersonal Psychology*, 53, 140–156.
- Lange, R., & Houran, J. (2024). Development of the Haunted People Syndrome Screener (HPSS). *Journal of Transpersonal Psychology*, 56, 6–26.
- Lange, R., Houran, J., Sheridan, L., Dagnall, N., Drinkwater, K., O’Keeffe, C., & Laythe, B. (2020). Haunted people syndrome revisited: Empirical parallels between subjective paranormal episodes and putative accounts of group-stalking. *Mental Health, Religion, & Culture*, 23, 532–549. <https://doi.org/10.1080/13674676.2020.1767552>
- Lange, Laythe, & Houran, (2023). Top-down purification of Tobacyk’s Revised Paranormal Belief Scale. *Personality and Individual Differences*, 29, 131–156. [https://doi.org/10.1016/S0191-8869\(99\)00183-X](https://doi.org/10.1016/S0191-8869(99)00183-X)
- Lange, Houran, Sheridan, et al., (2020). A review and re-evaluation of the Revised Transliminality Scale. *Psychology of Consciousness: Theory, Research and Practice*, 6, 67–89. <https://doi.org/10.1037/cns0000153>
- Lange, R., Laythe, B., & Houran, J. (2023). Preregistered field test of an ‘enchantment-psi’ loop. *Journal of Parapsychology*, 87, 11–34. <http://doi.org/10.30891/jopar.2023.01.03>
- Lange, R., Ross, R. M., Dagnall, N., Irwin, H. J., Houran, J., & Drinkwater, K. (2019). Anomalous experiences and paranormal attributions: Psychometric challenges in studying their measurement and relationship. *Psychology of Consciousness: Theory, Research, and Practice*, 6, 346–358. <https://doi.org/10.1037/cns0000187>
- Lange, R., Thalbourne, M. A., Houran, J., & Storm, L. (2000). The Revised Transliminality Scale: Reliability and validity data from a Rasch top-down purification procedure. *Consciousness & Cognition*, 9, 591–617. <https://doi.org/10.1006/ccog.2000.0472>
- Langston, W., Hubbard, T., Fehrman, C., D’Archangel, M., & Anderson, K. (2020). The role of personality in having a ghost experience and the role of personality and experience in the development of ghost belief. *Personality and Individual Differences*, 163, Article 110077. <https://doi.org/10.1016/j.paid.2020.110077>
- Laythe, B., Houran, J., Dagnall, N., & Drinkwater, K. (2021). Conceptual and clinical implications of a “haunted people syndrome.” *Spirituality in Clinical Practice*, 8, 195–214. <https://doi.org/10.1037/scp0000251>
- Laythe, B., Houran, J., Dagnall, N., Drinkwater, K., & O’Keeffe, C. (2022). *Ghosted! Exploring the haunting reality of paranormal encounters*. McFarland & Co.
- Laythe, B., Houran, J., & Little, C. (2021). The ghostly character of childhood imaginary companions: An empirical study of online accounts. *Journal of Parapsychology*, 85, 54–74. <http://doi.org/10.30891/jopar.2021.01.07>
- Laythe, B., Houran, J., & Ventola, A. (2018). A split-sample psychometric study of haunters. *Journal of the Society for Psychical Research*, 82, 193–218.
- Lebois, L. A. M., Kumar, P., Palermo, C. A., Lambros, A. M., O’Connor, L., Wolff, J. D., Baker, J. T., Gruber, S. A., Lewis-Schroeder, N., Ressler, K. J., Robinson, M. A., Winternitz, S., Nickerson, L. D., & Kaufman, M. L. (2022). Deconstructing dissociation: A triple network model of trauma-related dissociation and its subtypes. *Neuropsychopharmacology*, 47, 2261–2270. <https://doi.org/10.1038/s41386-022-01468-1>

- Lee, E. H. (2012). Review of the psychometric evidence of the Perceived Stress Scale. *Asian Nursing Research*, 6, 121–127. <https://doi.org/10.1016/j.anr.2012.08.004>
- Lifshitz, M., van Elk, M., & Luhrmann, T. M. (2019). Absorption and spiritual experience: A review of evidence and potential mechanisms. *Consciousness and Cognition*, 73, Article 102760. <https://doi.org/10.1016/j.concog.2019.05.008>
- Lindeman, M., Blomqvist, S., & Takada, M. (2012). Distinguishing spirituality from other constructs: Not a matter of well-being but of belief in supernatural spirits. *Journal of Nervous and Mental Disease*, 200, 167–173. <https://doi.org/10.1097/NMD.0b013e3182439719>
- Little, C., Laythe, B., & Houran, J. (2021). Quali-quantitative comparison of childhood imaginary companions and ghostly episodes. *Journal of the Society for Psychical Research*, 85, 1–30.
- Lomas, T., & VanderWeele, T. J. (2023). The Mental Illness-Health Matrix and the Mental State Space Matrix: Complementary meta-conceptual frameworks for evaluating psychological states. *Journal of Clinical Psychology*, 79, 1902–1920. <https://doi.org/10.1002/jclp.23512>
- Lönneker, C., & Maercker, A. (2021). The numinous experience in the context of psychopathology and traumatic stress studies. *Culture & Psychology*, 27, 392–416. <https://doi.org/10.1177/1354067X20922139>
- Loudis, J. (2018). Editor's note: Megalomania. *World Policy Journal*, 35, 1–2. <https://doi.org/10.1215/07402775-7085532>
- Luhrmann, T. M., Weisman, K., Aulino, F., Brahinsky, J. D., Dulin, J. C., Dzokoto, V. A., Legare, C. H., Lifshitz, M., Ng, E., Ross-Zehnder, N., & Smith, R. E. (2021). Sensing the presence of gods and spirits across cultures and faiths. *Proceedings of the National Academy of Sciences of the United States of America*, 118, Article e2016649118. <https://doi.org/10.1073/pnas.2016649118>
- Lutkajtis, A. (2021). Entity encounters and the therapeutic effect of the psychedelic mystical experience. *Journal of Psychedelic Studies*, 4, 171–178. <https://doi.org/10.1556/2054.2020.00143>
- Lynn, S. J., Polizzi, C., Merckelbach, H., Chiu, C. D., Maxwell, R., van Heugten, D., & Lilienfeld, S. O. (2022). Dissociation and dissociative disorders reconsidered: Beyond sociocognitive and trauma models toward a transtheoretical framework. *Annual Review of Clinical Psychology*, 18, 259–289. <https://doi.org/10.1146/annurev-clinpsy-081219-102424>
- Mack, J. E. (1994). *Abduction: Human encounters with aliens*. Ballantine Books.
- Maraldi, E. O. (2024). The link between dissociation and religious/spiritual experiences: A critical examination and comparison of existing hypotheses. In D. Yaden & M. van Elk (Eds), *The Oxford handbook of psychedelic, religious, spiritual, and mystical experiences* (online ed., May 22). Oxford Academic. Accessed 25 May 2024. <https://doi.org/10.1093/oxfordhb/9780192844064.013.31>
- Mayer, G. (Ed.) (2019). *N equals 1: Single case studies in anomalistics*. LIT Verlag.
- McCutcheon, L. E., Maltby, J., Ashe, D. D., & Houran, J. (2004). *Celebrity worshippers: Inside the minds of stargazers*. PublishAmerica.
- McKim, C. (2023). Meaningful member-checking: A structured approach to member-checking. *American Journal of Qualitative Research*, 7, 41–52. <https://www.ajqr.org/article/meaningful-member-checking-a-structured-approach-to-member-checking-12973>
- Michael, P., Luke, D., & Robinson, O. (2021). An encounter with the other: A thematic and content analysis of DMT experiences from a naturalistic field study. *Frontiers in Psychology*, 12, Article 720717. <https://doi.org/10.3389/fpsyg.2021.720717>

- Mitchell, C. A. A., Maybery, M. T., Russell-Smith, S. N., Collerton, D., Gignac, G. E., & Waters, F. (2017). The structure and measurement of unusual sensory experiences in different modalities: The multi-modality unusual sensory experiences questionnaire (MUSEQ). *Frontiers in Psychology*, 8, Article 1363. <https://doi.org/10.3389/fpsyg.2017.01363>
- Morgan, D. L. (2023). Exploring the use of artificial intelligence for qualitative data analysis: The case of ChatGPT. *International Journal of Qualitative Methods*, 22, 1–10. <https://doi.org/10.1177/16094069231211248>
- Morse, T. (2024). Digital necromancy: Users’ perceptions of digital afterlife and posthumous communication technologies. *Information, Communication & Society*, 27, 240–256. <https://doi.org/10.1080/1369118X.2023.2205467>
- Murly, A. (2022). Reflections on nothingness and oneness: The phenomenology of religious and mystical experience. *Journal for the Study of Religious Experience*, 8, 5–20. <https://rerc-journal.tsd.ac.uk/index.php/religiousexp/article/view/84>
- Namey, E., Guest, G., Thairu, L., & Johnson, L. (2008). Data reduction techniques for large qualitative data sets. In G. Guest & K. M. MacQueen (Eds.), *Handbook for team-based qualitative research* (pp. 137–161). Altamira Press.
- O’Keeffe, C., Houran, J., Houran, D. J., Drinkwater, K., Dagnall, N., & Laythe, B. (2019). The Dr. John Hall story: A case study of putative “haunted people syndrome.” *Mental Health, Religion, & Culture*, 22, 910–929. <https://doi.org/10.1080/13674676.2019.1674795>
- Oller, J. W., Jr., & Spolsky, B. (1979). The Test of English as a Foreign Language. In B. Spolsky (Ed.), *Advances in language testing, series 1: Some major tests* (pp. 92–100). Center for Applied Linguistics.
- OpenAI. (2023). *ChatGPT-4 (GPT-4)* [Computer software]. OpenAI. <https://www.openai.com/gpt-4>
- Orazi, D., & van Laer, T. (2023). There and back again: Bleed from extraordinary experiences. *Journal of Consumer Research*, 49, 904–925. <http://dx.doi.org/10.2139/ssrn.3347452>
- Palmer, G., & Hastings, A. (2013). Exploring the nature of exceptional human experiences: Recognizing, understanding, and appreciating EHEs. In H. L. Friedman & G. Hartelius (Eds.), *The Wiley-Blackwell handbook of transpersonal psychology* (pp. 333–351). Wiley Blackwell. <https://doi.org/10.1002/9781118591277.ch18>
- Palmer-Cooper, E., McGuire, N., & Wright, A. (2021). Unusual experiences and their association with metacognition: Investigating ASMR and tulpamancy. *Cognitive Neuropsychiatry*, 27, 86–104. <https://doi.org/10.1080/13546805.2021.1999798>
- Peres, J. F., Moreira-Almeida, A., Caixeta, L., Leao, F., & Newberg, A. (2012). Neuroimaging during trance state: A contribution to the study of dissociation. *PLoS One*, 7, Article e49360. <https://doi.org/10.1371/journal.pone.0049360>
- Persinger, M. A., & Koren, S. A. (2001). Predicting the characteristics of haunt phenomena from geomagnetic factors and brain sensitivity: Evidence from field and experimental studies. In J. Houran & R. Lange (Eds.), *Hauntings and poltergeists: Multidisciplinary perspectives* (pp. 179–194). McFarland & Co.
- Persinger, M. A., & Makarec, K. (1993). Complex partial epileptic-like signs as a continuum from normals to epileptics: Normative data and clinical populations. *Journal of Clinical Psychology*, 49, 33–45. [https://doi.org/10.1002/1097-4679\(199301\)49:1<33::AID-JCLP2270490106>3.0.CO;2-H](https://doi.org/10.1002/1097-4679(199301)49:1<33::AID-JCLP2270490106>3.0.CO;2-H)

- Petitmengin, C. (2006). Describing one's subjective experience in the second person: An interview method for the science of consciousness. *Phenomenology and the Cognitive Science*, 5, 229–269. <https://doi.org/10.1007/s11097-006-9022-2>
- Petitmengin, C., Remillieux, A., & Valenzuela-Moguillansky, C. (2019). Discovering the structures 1227 of lived experience: Towards a micro-phenomenological analysis method. *Phenomenology and the Cognitive Sciences*, 18, 691–730. <https://doi.org/10.1007/s11097-018-9597-4>
- Plante, T. E., & Schwartz, G. E. (Eds.) (2021). *Interaction with the divine, the sacred, and the deceased: Psychological, scientific, and theological perspectives*. Routledge/Taylor & Francis. <https://doi.org/10.4324/9781003105749>
- Plante, T. G., Schwartz, G. E., Exline, J. J., Park, C. L., Paloutzian, R. F., Seitz, R. J., & Angel, H-F. (2023). Human interaction with the divine, the sacred, and the deceased: Topics that warrant increased attention by psychologists. *Current Psychology*, 1–15. <https://doi.org/10.1007/s12144-022-04226-0>
- Rabeyron, T., & Watt, C. (2010). Paranormal experiences, mental health and mental boundaries, and psi. *Personality and Individual Differences*, 48, 487–492. <https://doi.org/10.1016/j.paid.2009.11.029>
- Rasch, G. (1960). *Probabilistic models for some intelligence and attainment tests*. (Copenhagen, Danish Institute for Educational Research), expanded edition (1980) with foreword and afterword by B. D. Wright. University of Chicago Press.
- Reed, J. C. (2025). They will surveil you to death: Gangstalking as a cultural concept of distress. *Culture, Medicine, and Psychiatry*. Culture, Medicine and Psychiatry, 49, 281–303. <https://doi.org/10.1007/s11013-024-09881-5>
- Robertson, V. L. D. (2017). Salvation and animation: Religion, fandom and identity in the romantic narratives of mystics and Soulbonaders. In C. M. Cusack & P. Kosnáč (Eds.), *Fiction, invention and hyper-reality: From popular culture to religion* (pp. 58–78). Routledge.
- Rodrigues, M. A. C., Barbosa, F. C., Lopes, G. C. D., Santacrose, L., & Lopes, P. C. P. (2023). Intersection between spirituality and neuroscience: Biological bases of transcendental experiences. *Revista De Gestão Social E Ambiental*, 17, Article e04148. <https://doi.org/10.24857/rgsa.v17n9-015>
- Rogo, D. S. (1982). The poltergeist and family dynamics. *Journal of the Society for Psychical Research*, 51, 233–237.
- Roll, W. G. (1977). Poltergeists. In B.B. Wolman (Ed.), *Handbook of parapsychology* (pp. 382–413). Van Nostrand Reinhold.
- Ross, C. A., & Joshi, S. (1992). Paranormal experiences in the general population. *Journal of Nervous and Mental Disease*, 180, 357–361. <https://doi.org/10.1097/00005053-199206000-00004>
- Ross, R. M., Hartig, B., & McKay, R. (2017). Analytic cognitive style predicts paranormal explanations of anomalous experiences but not the experiences themselves: Implications for cognitive theories of delusions. *Journal of Behavior Therapy and Experimental Psychiatry*, 56, 90–96. <https://doi.org/10.1016/j.jbtep.2016.08.018>
- Rowlands M. (2010). *The new science of the mind: From extended mind to embodied phenomenology*. MIT Press. <https://doi.org/10.7551/mitpress/9780262014557.001.0001>

- Roxburgh, E. C., Vernon, D. & Schofield, M. B. (2024). Sensory processing sensitivity, transliminality, and boundary-thinness as predictors of anomalous experiences, beliefs, and abilities. *Current Psychology*, 43, 30098–30106.. <https://doi.org/10.1007/s12144-024-06619-9>
- Rubinstein, D., & Lahad, M. (2023). Fantastic reality: The role of imagination, playfulness, and creativity in healing trauma. *Traumatology*, 29, 102–111. <https://doi.org/10.1037/trm0000376>
- Sanders, L., Orth, T., Davis, I., & Bialik, C. (2022, Oct 20). Paranormal encounters, YouGov poll: October 12–16, 2022. Accessed at: <https://shorturl.at/fEMT0>
- Santos, C., & Michaels, J. L. (2022). What are the core features and dimensions of “spirituality”? Applying a partial prototype analysis to understand how laypeople mentally represent spirituality as a concept. *Psychology of Religion and Spirituality*, 14, 10–20. <https://doi.org/10.1037/REL0000380>
- Schaffer, V., Huckstepp, T. & Kannis-Dymand, L. (2024). Awe: A systematic review within a cognitive behavioural framework and proposed cognitive behavioural model of awe. *International Journal of Applied Positive Psychology*, 9, 101–136. <https://doi.org/10.1007/s41042-023-00116-3>
- Schiavio, A., & van der Schyff, D. (2018). 4E music pedagogy and the principles of self-organization. *Behavioral Sciences*, 8, Article 72. <https://doi.org/10.3390/bs8080072>
- Schutte, M., Bohlken, M., Collin, G., Abramovic, L., Boks, M., *et al.* (2021). Functional connectome differences in individuals with hallucinations across the psychosis continuum. *Scientific Reports*, 11, Article 1108. <https://doi.org/10.1038/s41598-020-80657-8>
- Seamon, D. (2000). A way of seeing people and place: Phenomenology in environment-behavior research. In S. Wapner, J. Demick, T. Yamamoto, & H. Minami (Eds.), *Theoretical perspectives in environment-behavior research: Underlying assumptions, research problems, and methodologies* (pp. 157–178). Kluwer Academic Publishers. https://doi.org/10.1007/978-1-4615-4701-3_13
- Şen, M., Şen, Şevval N., & Şahin, T. (2023). A new era for data analysis in qualitative research: ChatGPT! *Shanlax International Journal of Education*, 11, 1-15. <https://doi.org/10.34293/education.v11i1oct.6683>
- Sharf, R. H. (2000). The rhetoric of experience and the study of religion. *Journal of Consciousness Studies*, 7, 11–12.
- Sharps, M. J., Newborg, E., Arsdall, S., DeRuiter, J., Hayward, B., & Alcantar, B. (2010). Paranormal encounters as eyewitness phenomena: Psychological determinants of atypical perceptual interpretations. *Current Psychology*, 29, 320–327. <https://doi.org/10.1007/s12144-010-9091-9>
- Sheldrake, R. (1998). Experimenter effects in scientific research: How widely are they neglected? *Journal of Scientific Exploration*, 12, 73-78.
- Simmonds-Moore, C. A. (2024). Exploring the correlates and nature of subjective anomalous interactions with objects (psychometry): A mixed methods survey. *Frontiers in Psychology*, 15, Article 1365144. <https://doi.org/10.3389/fpsyg.2024.1365144>
- Smith, P. C., Schmidt, S. M., Allensworth-Davies, D., & Saitz, R. (2010). A single-question screening test for drug use in primary care. *Archives of Internal Medicine*, 170, 1155–1160. <https://doi.org/10.1001/archinternmed.2010.140>
- Tassell-Matamua, N. A., & Frewin, K. E. (2019). Psycho-spiritual transformation after an exceptional human experience, *Journal of Spirituality in Mental Health*, 21, 237–258. <https://doi.org/10.1080/19349637.2018.1481487>

- Taylor, S. (2012). Spontaneous awakening experiences: Beyond religion and spiritual practice. *Journal of Transpersonal Psychology*, 44, 73–91.
- Team Salvato (2017). *Doki Doki Literature Club!* [software]. <https://teamsalvato.com/>
- Thalbourne, M. A., & Maltby, J. (2008). Transliminality, thin boundaries, unusual experiences, and temporal lobe lability. *Personality and Individual Differences*, 44, 1617–1623. <https://doi.org/10.1016/j.paid.2008.01.022>
- Tobacyk, J. J. (1988). *A Revised Paranormal Belief Scale*. Unpublished manuscript. Louisiana Tech University.
- Tobacyk, J. J. (2004). The Revised Paranormal Belief Scale. *International Journal of Transpersonal Studies*, 23, 94–98. <https://doi.org/10.24972/ijts.2004.23.1.94>
- Vvan Elk, M., Karinen, A., Specker, E., Stamkou, E., & Baas, M. (2016). ‘Standing in awe’: The effects of awe on body perception and the relation with absorption. *Collabra*, 2, Article 4. <https://doi.org/10.1525/collabra.36>
- Vassar, M., & Holzmman, M. (2013). The retrospective chart review: Important methodological considerations. *Journal of Educational Evaluation for Health Professions*, 10, Article 12. <https://doi.org/10.3352/jeehp.2013.10.12>
- Ventola, A., Houran, J., Laythe, B., Storm, L., Parra, A., Dixon, J., & Kruth, J. G. (2019). A transliminal ‘dis-ease’ model of poltergeist ‘agents.’ *Journal of the Society for Psychical Research*, 83, 144–171.
- Wahbeh, H., & Radin, D. (2017). People reporting experiences of mediumship have higher dissociation symptom scores than non-mediums, but below thresholds for pathological dissociation. *F1000Research*, 6, Article 1416. <https://doi.org/10.12688/f1000research.12019.3>
- Wallace, D., Cooper, N. R., Sel, A., & Russo, R. (2023). The social readjustment rating scale: Updated and modernised. *PLoS One*, 18, Article e0295943. <https://doi.org/10.1371/journal.pone.0295943>
- Walenski, M., Weickert, T. W., Maloof, C. J., & Ullman, M. T. (2010). Grammatical processing in schizophrenia: Evidence from morphology. *Neuropsychologia*, 48, 262–269. <https://doi.org/10.1016/j.neuropsychologia.2009.09.012>
- Weinstein, D., & Weinstein, M. A. (1981). Intellectual transcendence: Karl Mannheim’s defence of the sociological attitude. *History of European Ideas*, 2, 97–114. [https://doi.org/10.1016/0191-6599\(81\)90034-6](https://doi.org/10.1016/0191-6599(81)90034-6)
- West, D. (2015). Society for Psychical Research. In *Psi encyclopedia* (The Society for Psychical Research online resource). Accessed 13 November 2023 at: <https://psi-encyclopedia.spr.ac.uk/articles/society-psychical-research>
- Wilber, K. (1997). An integral theory of consciousness. *Journal of Consciousness Studies*, 4, 71–92.
- Wildman, W. J., & Stockly, K. J. (2021). *Spirit tech: The brave new world of consciousness hacking and enlightenment engineering*. St. Martin’s Press.
- Willard, A. K., & Norenzayan, A. (2013). Cognitive biases explain religious belief, paranormal belief, and belief in life’s purpose. *Cognition*, 129, 379–391. <https://doi.org/10.1016/j.cognition.2013.07.016>
- Wilt, J. A., Stauner, N., May, R. W., Fincham, F. D., Pargament, K. I., & Exline, J. J. (2022). Who engages with supernatural entities? An investigation of personality and cognitive style predictors. *Imagination, Cognition and Personality*, 41, 373–414. <https://doi.org/10.1177/02762366211065677>

- Woodard, F. J. (2012). A phenomenological study of spontaneous spiritual and paranormal experiences in a 21st-century sample of normal people. *Psychological Reports, 110*, 73–132. <https://doi.org/10.2466/02.09.PR0.110.1.73-132>
- Zhang, H., Wu, C., Xie, J., Lyu, Y., Cai, J., & Carroll, J. (2023). Redefining qualitative analysis in the AI era: Utilizing ChatGPT for efficient thematic analysis. *ArXiv*, abs/2309.10771. <https://doi.org/10.48550/arXiv.2309.10771>
- Zusne, L., & Jones, W. H. (1989). *Anomalistic psychology: A study of magical thinking* (2nd ed.). Psychology Press.



Predictors of Gaming Addiction Among University Students: Gender, Spiritual Well-Being, and Meaning in Life

İbrahim Taş¹
Sakarya University

Ahmet Uğurlu²
Bolu Abant İzzet Baysal University

¹ Assoc. Prof., Faculty of Humanities and Social Sciences, Sakarya University, Kemalpaşa, Serdivan, Sakarya, Türkiye. E-mail: ibrahimtas@sakarya.edu.tr

² Assoc. Prof., Faculty of Theology, Department of Philosophy and Religious Sciences Gölköy Campus, Bolu Abant İzzet Baysal University, Bolu, Türkiye, E-mail: ahmetugurlu@ibu.edu.tr

Abstract

Gaming addiction has emerged as a pressing public health concern, attracting significant attention from researchers. Investigating the factors associated with gaming addiction can contribute to a better understanding of this issue. Spiritual well-being and meaning in life may be considered relevant constructs in this context. Accordingly, this study aims to examine the relationship between gaming addiction, spiritual well-being, and meaning in life among university students. The study sample comprised 420 university students, including 234 women (55.7%) and 186 men (44.3%), aged between 17 and 44 years ($M = 21.82$). Data were collected using a demographic information form, the Gaming Disorder Scale, the Spiritual Well-Being Scale, and the Meaning in Life Scale. The findings revealed a negative correlation between gaming addiction, spiritual well-being, and meaning in life. Furthermore, spiritual well-being and the presence of meaning subdimension negatively predicted gaming addiction, while gender was also found to be a significant predictor. These results suggest that higher levels of spiritual well-being and meaning in life may serve as protective factors against gaming addiction.

Keywords:

Gaming addiction • Spiritual well-being • Meaning in life • Gender, Hierarchical regression

Corresponding author:

İbrahim Taş

E-mail: ibrahimtas@sakarya.edu.tr

eISSN: 2458-9675

Received: 16.09.2024

Revision: 11.02.2025

Accepted: 16.02.2025

©Copyright 2025 by Author(s)

Citation: Taş, İ. & Uğurlu, A. (2025). Predictors of gaming addiction among university students: Gender, spiritual well-being, and meaning in life. *Spiritual Psychology and Counseling*, 10(2), 297–312. <http://doi.org/10.37898/spiritualpc.1550731>

Introduction

The internet, which is at the forefront of technological developments, has managed to attract people by influencing many areas of life. Today, many needs, from banking transactions to official institution-related procedures, from education to shopping, can be easily met through the internet. One of the areas directly influenced and shaped by technological advancements is the entertainment needs of human beings. The need for entertainment is one of the fundamental psychological needs (Glasser, 2003). Playing games is an activity that fulfills this need for entertainment. This activity is not only enjoyable and entertaining but also a way to break away from daily routines (Kuss & Griffiths, 2012). In the past, entertainment needs were met primarily through socialization and interactive games played individually or collectively. However, with the advent of the virtual world, this need is now being met in a different context. Games, with their interactive structure, allow individuals to exist in the digital world as they wish through avatars, fulfilling their entertainment needs and leading them to spend significant amounts of time in digital games. Additionally, digital games can serve as an escape, providing individuals with a way to cope with interpersonal problems and contributing to their social status through in-game achievements (Li & Wang, 2013). Due to these characteristics, individuals may spend excessive time playing games. Excessive gaming can pose a risk of addiction (Gentile et al., 2017).

The process of gaming addiction begins with an individual's mind being constantly occupied with gaming (Young, 2009). As a result of this mental preoccupation, individuals may experience difficulties focusing on work, school, or other daily responsibilities. Gaming addiction, which starts with constant mental engagement with games, has been defined by the American Psychiatric Association [APA] (2013) and the World Health Organization (WHO, 2019) with additional criteria. In the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) published by the APA (2013), gaming disorder is categorized under behavioral addictions, which are non-substance-related disorders, in Section 3. Online gaming disorder is explained by the APA (2013) through nine criteria: preoccupation with games for at least 12 months, feelings of restlessness, anxiety, and sadness when not playing games, spending increasing amounts of time gaming, unsuccessful attempts to stop or control gaming, losing interest in previously enjoyable hobbies and activities, continued excessive gaming, lying to family members and therapists about gaming time, playing games to escape from negative emotions (such as helplessness, guilt, and anxiety), and jeopardizing or losing job, educational, or career opportunities due to gaming. Similarly, the World Health Organization (WHO, 2019) defines gaming disorder through symptoms emerging in three areas. These include losing control over gaming (in terms of initiation, frequency, intensity, duration, termination, and the context in which the game is played) for at least 12 months, gaming becoming

more important than other life domains and daily activities, and continuing to play games despite significant impairments in personal, familial, social, educational, occupational, or other important areas.

Digital game addiction continues to attract the attention of both academic circles and clinicians working in practice as a significant public health concern. One of the factors contributing to the increasing attention to game addiction is that it does not remain an innocent habit but is associated with various other problems, as outlined below. A study conducted by Torres-Rodriguez et al. (2017) found that game addiction is closely related to problematic behaviors in mental health and socio-cultural aspects, such as online gambling addiction. When examining other concepts related to game addiction, it is observed that game addiction has negative correlations with life satisfaction and social support (Baysak et al., 2020), emotion regulation and school attachment (Liu et al., 2017), and positive correlations with psychological problems (Yeşilyurt, 2020), bullying cognitions (Kılıç, 2019), attention deficit hyperactivity disorder, obsessive-compulsive disorder, depression, and anxiety (Andreassen et al., 2016).

Reducing or eliminating game addiction, which is considered a risky behavior, can be achieved by examining and identifying the associated concepts. One of these concepts is spiritual well-being. Spiritual well-being, which is considered a way to cope with psychological problems and difficulties in life, including illnesses (McClain et al., 2003), can serve as a protective factor against computer game addiction (Braun et al., 2016). Studies indicate that as spiritual well-being increases, social media addiction (Wood et al., 2016) and other chemical addictions decrease (Dermatis & Galanter, 2016), suggesting that a similar effect may be observed in digital game addiction. This is because it is known that both chemical and technology addictions activate the brain's reward center (Öztürk & Karademir, 2024). A similar effect may also be expected for game addiction.

Spirituality, which is an essential motivating and adaptive force in an individual's life (Ekşi & Kardaş, 2017), originates from the Latin word “spiritus,” meaning breath or life (Hill et al., 2000). Spirituality is defined as the search for meaning in life and the continuation of life in accordance with the meaning found (Rohde et al., 2017). Spirituality is generally considered in two dimensions. The vertical dimension encompasses an individual's relationship with a transcendent power (God) and their system of values. The horizontal dimension refers to an individual's lifestyle, self-relationship, and connections with others and the environment (Ross, 1995).

Spiritual well-being is a concept that examines an individual's relationship with oneself, the environment, and God, encompassing topics related to life and religion (Acar, 2014). It is expressed as humanity's quest to make sense of existence, search for purpose, question life in general, and seek to understand abstract entities that

are not easily comprehended or explained (Opatz, 1986). Spiritual well-being is also considered a state of wellness and well-being that arises from an individual's search for a harmonious, intrinsic, and meaningful life purpose and self-confidence to overcome difficulties and achieve the goals set in life (Lee & Salman, 2016).

When examining the variables associated with spiritual well-being in the literature, it is found to be positively related to resilience (Cotton et al., 1999), well-being and happiness (Gomez & Fisher, 2003), quality of life (Allahbakhshian et al., 2010), meaning in life (Ekşi et al., 2019), perceived health (Salman & Lee, 2019), and mental health (Jafari et al., 2010). Conversely, spiritual well-being has been found to be negatively related to depression (Ando et al., 2010; Mills et al., 2015), helplessness and hopelessness (Cotton et al., 1999), and internet addiction (Taş, 2022).

Another protective factor against digital game addiction can be the meaning of life. The meaning of life is considered the sense of coherence, significance, and control over one's life, along with a sense of belonging to life (Schnell, 2009). In contrast, game addiction emerges as a result of individuals losing control and turning to games due to an inability to manage negative emotions (APA, 2013). In this context, the concept of meaning in life, which is related to digital game addiction, is considered a natural outcome of balanced, mindful existence and unbiased attitudes (Dogra et al., 2011).

The search for meaning in life is a fundamental motivation for humans and is unique and personal because it can only be discovered by the individual themselves (Frankl, 2009). This unique concept encompasses the value and purpose of life, significant goals, and for some, spirituality (Jim et al., 2006). Ryff and Singer (1998) consider the meaning of life as a broader component of well-being.

The concept of meaning in life does not refer to the existence of an absolute meaning. There can be as many meanings as there are individuals; thus, all interpretations regarding the meaning of life can be considered valid (Adler, 2010). Regardless of circumstances, individuals can always find meaning in life, and this meaning includes not only positive experiences but also suffering, death, and deprivation (Frankl, 2009).

Studies on the meaning of life indicate that it is positively associated with optimism, life satisfaction, and happiness (Demir & Murat, 2017). Additionally, the search for meaning is positively related to the coping dimensions of avoidance and problem-focused coping, while spiritual experience and presence of meaning are positively related to avoidance, problem-focused coping, seeking social support, and spiritual orientation (Şimşir et al., 2020). A negative relationship has been found between meaning in life and social media addiction and fear of missing out in social environments, with meaning in life found to predict social media addiction (Koçak & Traş, 2021). Furthermore, presence of meaning is positively associated

with psychological resilience and negatively related to state anxiety, and presence of meaning predicts psychological resilience (Kul et al., 2020).

Playing digital games in a dysfunctional manner emerges as a serious risk factor for people of all ages and backgrounds. As game addiction increases, academic achievement decreases (Brunborg et al., 2014), and cognitive impairments directly related to academic performance increase (Zandi & Mirzaeidoostan, 2019). The harmful effects of game addiction are not limited to the academic domain. Individuals suffering from addiction may also jeopardize their future career opportunities (APA, 2013). Additionally, such individuals may experience a lack of life satisfaction (Baysak et al., 2020) and psychological problems (Yeşilyurt, 2020). These negative effects resulting from game addiction impact both students and other groups of game addicts, making it more challenging for individuals to achieve their academic and life-related goals. Spiritual well-being, defined as a state of wellness and well-being that facilitates overcoming life's challenges and achieving set goals (Lee & Salman, 2016), can mitigate the negative effects of game addiction and serve a protective function by enhancing individual well-being. Another factor that can provide individuals with a safe harbor against the negative effects of game addiction is their perception of life as meaningful and purposeful. The presence of life's value, purpose, and significant goals to achieve (Jim et al., 2006) can serve as a protective factor against game addiction. An increase in both spiritual well-being and meaning in life can reduce the negative effects of game addiction while contributing to an individual's overall well-being.

In this context, this study aims to answer the following research questions:

1. Does gender predict game addiction?
2. Does spiritual well-being predict game addiction?
3. Does meaning in life (presence of meaning and search for meaning) predict digital game addiction?

Method

Research Model

The relational survey model, one of the general survey models, was used in the study. The relational survey model is a survey model that examines whether two or more variables change together and, if there is a change, investigates the direction of this change (Durmuş et al., 2011; Karasar, 1998). The research data were tested using hierarchical regression analysis. In this model, predictor variables are analyzed in an order determined by the researcher. The predictive effect of each variable on the dependent variable is evaluated separately. The predictor variables included earlier in

the model serve as control variables for the predictor variables included later in the model (Büyüköztürk, 2014).

Research Group

A power analysis was conducted to determine the sample size. The a priori power analysis performed using G*Power 3.1.9.7 software indicated that a total sample size of 89 would be required for a medium effect size ($f^2 = 0.15$; $\alpha = 0.05$; power level = 0.95). Since the sample size in this study exceeded the required number, it was deemed sufficient. Individuals under the age of 18 and those with any clinical diagnosis were not included in the study. The sample of the study was selected using a convenience sampling method, which aims to prevent the loss of time, money, and labor (Büyüköztürk et al., 2018). The research group consisted of 420 university students. Of the participants, 234 (55.7%) were female, and 186 (44.3%) were male. The participants' ages ranged from 18 to 44 years, with a mean age of 21.83.

Data Collection Instruments

Personal Information Form: The personal information form was prepared by the researchers to determine participants' age, gender, and class level.

Gaming Disorder Scale: The scale was developed by Pontes and Griffiths (2015) and adapted into Turkish culture by Arıcak et al. (2018). The scale is a 5-point Likert-type scale and is unidimensional. The lowest possible score on the scale is 9, while the highest is 45. Higher scores indicate a higher level of gaming disorder. The scale does not contain any reverse items. Construct validity was tested using confirmatory factor analysis (CFA). The fit indices obtained from CFA demonstrated that the scale was valid ($\chi^2/df = 4.79$, TLI = 0.87, CFI = 0.90, RMSEA = 0.09). The Cronbach's alpha internal consistency coefficient was found to be .82. In the current study, the Cronbach's alpha internal consistency coefficient was calculated as .85.

Spiritual Well-Being Scale: The scale was developed by Ekşi and Kardaş (2017). It is a 5-point Likert-type scale consisting of 29 items and three sub-dimensions (transcendence, harmony with nature, and anomie). Higher scores on the sub-dimensions indicate that the individual possesses the characteristics of that sub-dimension. When calculating the total score, the items in the anomie sub-dimension must be reverse-scored. Exploratory factor analysis showed that the three sub-dimensions explained 58.337% of the total variance. The confirmatory factor analysis results indicated that the model had a good fit ($\chi^2/df = 4.11$, RMSEA = .06, SRMR = .050, NFI = .90, CFI = .92). The Cronbach's alpha internal consistency coefficient for the total scale was .89. In the current study, the internal consistency coefficient was found to be .83.

Meaning in Life Scale: The scale was developed by Steger et al. (2006) and adapted into Turkish culture by Akın and Taş (2015). It is a 7-point Likert-type scale consisting of 10 items and two sub-dimensions (presence of meaning and search for meaning). Higher scores on the sub-dimensions indicate that the individual possesses the relevant characteristics of that sub-dimension. One item (item 9) is reverse-scored. The construct validity of the scale was tested using both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA results showed that the 10 items explained 57% of the total variance. The goodness-of-fit values obtained from CFA demonstrated that the scale was valid ($\chi^2 = 77.77$, $df = 31$, $RMSEA = .065$, $NFI = .95$, $CFI = .97$, $GFI = .96$, $AGFI = .93$, $RFI = .93$, $SRMR = .065$). The Cronbach's alpha internal consistency coefficients were found to be .77 for presence of meaning and .83 for search for meaning. In the current study, the internal consistency coefficients were calculated as .81 for presence of meaning and .83 for search for meaning.

Data Collection and Analysis

The data were collected from students face-to-face on a voluntary basis. It was stated that they could withdraw from the study at any time. Informed consent was obtained from the students. This study was conducted in full compliance with the ethical standards of the Declaration of Helsinki and was approved by the Ethics Committee of the Faculty of Social and Human Sciences at Sakarya University (Date and Number: 06.10.2022- E-61923333-050.99-175484). Data were collected from a total of 432 students. After removing outlier cases, the final analysis was conducted with a total of 420 data points. First, the normality of the data was tested. Once it was determined that the data were normally distributed (Table 1), parametric tests were applied. The relationship between game addiction, spiritual well-being, and meaning in life was tested using Pearson correlation analysis. Since the predictive effect of the variables on game addiction was examined using hierarchical regression analysis, the assumptions of multiple regression were tested. After confirming the normal distribution, the Durbin-Watson value was checked for autocorrelation problems, and it was observed that the value ($dw = 1.922$) fell within the acceptable range of 1.5–2.5, indicating no autocorrelation (Küçükşille, 2014). The issue of multicollinearity was assessed using variance inflation factors (VIF) and tolerance values. It was found that VIF values (ranging from 1.004 to 1.215) were below the acceptable threshold of 10, and tolerance values (.823–.996) were above .10, indicating acceptable limits. The scatter plot of the variables was examined to assess the assumptions of multivariate normality and linearity, revealing an ellipse-like distribution, thus confirming that the assumptions were met (Çokluk et al., 2012).

Results

Before conducting hierarchical regression analysis, descriptive statistics, skewness, and kurtosis values, as well as the relationships between the variables, were examined, and the obtained values are presented in Table 1.

Table 1.

Descriptive Statistics and Correlation Coefficients

Variables	N	M/Se	Sd	Skewness	Kurtosis	GA	SWB	POM	SFM
GA	420	13.00/.22	4.60	1.46	1.92	-			
SWB	420	122.29/.51	10.45	-.671	1.16	-.308**	-		
POM	420	26.68/.32	6.50	-.720	.294	-.258**	.407**	-	
SFM	420	25.19/.32	6.63	-.874	.317	-.124*	.069	.355**	-

* $p < .01$, $p < .05$; GA: Game Addiction, SWB: Spiritual Well-Being, POM: Presence of Meaning, SFM: Search for Meaning

According to the skewness and kurtosis values in Table 1 (.214–1.92), the data are normally distributed (George & Mallery, 2016). Examining the correlation coefficients between variables, a negative relationship was found between game addiction and spiritual well-being ($r = -.308$, $p < .01$), as well as between game addiction and presence of meaning ($r = -.258$, $p < .01$) and search for meaning ($r = -.124$, $p < .05$). A positive relationship was found between spiritual well-being and presence of meaning ($r = .407$, $p < .01$), whereas no significant relationship was found between spiritual well-being and search for meaning ($r = .069$, $p > .05$).

The results of the hierarchical regression analysis regarding the predictive effects of gender, spiritual well-being, and the sub-dimensions of meaning in life (presence of meaning and search for meaning) on game addiction are presented in Table 2.

Table 2.

Hierarchical Regression Analysis for the Prediction of Game Addiction by Gender, Spiritual Well-Being, Presence of Meaning, and Search for Meaning

Variable	B	Standard Error	B	<i>t</i>	<i>p</i>	Dual R	Partial R
Constant	11.82	.288		41.04	.000		
Gender (Male)	2.68	.433	.290	6.21	.000	.290	.290
Block 1: $R = .290$; $R^2 = .084$; $\Delta R^2 = .084$; $F_{(1, 418)} = 38.52$; $p < .001$							
Constant	27.98	2.42		11.58	.000		
Gender (Male)	2.60	.412	.281	6.32	.000	.280	.295
SWB	-.132	.020	-.300	-6.73	.000	-.308	-.313
Block 2: $R = .417$; $R^2 = .174$; $\Delta R^2 = .090$; $F_{(2, 417)} = 43.95$; $p < .001$							
Constant	27.96	2.50		11.17	.000		
Gender (Male)	2.60	.408	.281	6.37	.000	.290	.299
SWB	-.104	.021	-.236	-4.87	.000	-.308	-.233
POM	-.107	.036	-.152	-2.94	.003	-.258	-.143
SFM	-.022	.033	-.032	-.682	.496	-.124	-.033

Block 3: $R = .444$; $R^2 = .198$; $\Delta R^2 = .023$; $F_{(4, 415)} = 25.54$; $p < .001$

GA: Game addiction, SWB: Spiritual Well-Being, POM: Presence of Meaning, SFM: Search for Meaning

The results of the hierarchical regression analysis conducted in three steps are presented in Table 2. In the first step, the gender variable was included in the analysis. In the second block, spiritual well-being was added to the analysis. In the third block, the sub-dimensions of the meaning in life scale, namely presence of meaning and search for meaning, were included in the analysis.

In the first block, gender was found to be a significant predictor of game addiction ($F(1, 418) = 38.52$; $p < .001$, $R = .290$; $R^2 = .084$; $\Delta R^2 = .084$). Accordingly, gender ($\beta = .290$, $p < .01$) explained 8.4% of the variance in game addiction.

In the second block, spiritual well-being was found to be a significant predictor of game addiction ($F(2, 417) = 43.95$; $p < .001$, $R = .417$; $R^2 = .174$; $\Delta R^2 = .090$). Spiritual well-being ($\beta = -.300$, $p < .001$) explained 9% of the variance in game addiction.

In the third block, the sub-dimensions of the meaning in life scale, presence of meaning and search for meaning, were included in the analysis. The overall model was found to be significant ($F(4, 415) = 25.54$; $p < .001$, $R = .444$; $R^2 = .198$; $\Delta R^2 = .023$). Examining the included variables, presence of meaning ($\beta = -.152$, $p < .01$) was found to significantly predict game addiction, whereas search for meaning ($\beta = -.032$, $p > .05$) was not a significant predictor. Meaning in life explained 2.3% of the variance in game addiction. When the three-step model was evaluated as a whole, it was observed that the variables explained approximately 20% of the variance in game addiction.

Discussion

This study examined gender, spiritual well-being, and meaning in life as predictors of gaming addiction among university students. The findings indicated that gender, spiritual well-being, and the presence of meaning in life significantly predicted gaming addiction, whereas the search for meaning did not.

Regarding the first research question, the results showed that gender significantly predicted gaming addiction. Male students exhibited significantly higher levels of gaming addiction compared to female students. A review of the literature reveals numerous studies supporting these findings (Horzum, 2011; Göldağ, 2018; Korkmaz & Korkmaz, 2019; Tejeiro Salguero & Moran, 2002; Taş & Güneş, 2019; Wittek et al., 2016). However, some studies have suggested that gaming addiction does not significantly differ by gender (Gunuc, 2017; Taş et al., 2014). Hoeft et al. (2008) conducted a pioneering study exploring why males are more prone to gaming addiction. Their research indicated that the brain's reward system is more active in males than in females during video gaming. This heightened activity in the reward system may explain why males engage in gaming more frequently to sustain these pleasurable feelings.

Concerning the second research question, the study found that spiritual well-being significantly and negatively predicted gaming addiction. Pong (2024) found that spiritual well-being predicts gaming addiction, while Taş (2022) and Utomo and Marianta (2023) reported that spiritual well-being significantly predicts internet addiction. The inverse relationship between spiritual well-being and gaming addiction suggests that spiritual well-being serves as a protective factor against gaming addiction. One of the key criteria of gaming addiction is its role in altering negative emotions and providing an escape from them (APA, 2013). Games function as a coping strategy for negative life events, which is a crucial factor in addiction development (Griffiths, 2005). In contrast to the dysfunctional aspects of gaming, spiritual well-being positively influences individuals by enabling them to cope with difficulties and fostering a sense of well-being (Lee & Salman, 2016). An increase in well-being and psychological resilience may act as a protective mechanism against the negative emotions and adverse experiences that contribute to gaming addiction. Reducing negative emotions through spiritual well-being may, in turn, reduce gaming addiction.

The final research question examined the predictive role of meaning in life (presence of meaning and search for meaning) in gaming addiction. The results indicated that the presence of meaning in life negatively and significantly predicted gaming addiction, whereas the search for meaning did not emerge as a significant predictor. The literature contains studies supporting the predictive role of meaning in life in gaming addiction (Kaya et al., 2023; Zhao et al., 2020). Meaning in life encompasses identifying life's value, purpose, and important goals and striving toward them (Jim et al., 2006). Individuals who find their lives meaningful are more likely to be disciplined in pursuing their goals, use their time effectively, and derive satisfaction from life. Studies indicate that an increased sense of meaning in life enhances psychological resilience (Kul et al., 2020), life satisfaction, positive self-perception, and internal locus of control (Taş & İskender, 2018). Conversely, individuals with gaming addiction exhibit lower self-efficacy, lower self-esteem, and greater maladjustment (Baş, 2018). In this context, while meaning in life is associated with positive attitudes and emotional states, gaming addiction is linked to more negative and pathological conditions. The sense of purpose, psychological resilience, and life satisfaction fostered by meaning in life suggest that it may serve as a protective factor against gaming addiction. Although the search for meaning was associated with gaming addiction, it did not significantly predict it. This may be due to individuals still being in the process of searching for meaning, without having yet formed attitudes or behaviors that reflect a defined purpose or life goals.

In conclusion, in the digital era, complete detachment from technology is unrealistic. Therefore, identifying protective factors against the potential adverse effects of technology may help mitigate its negative consequences. Enhancing spiritual well-being and meaning in life may serve as protective factors against the increasingly prevalent issue of gaming addiction.

Limitations

The results of the study were obtained from self-report questionnaires. The responses provided in the self-report questionnaires may be influenced by the individual's current emotional state. Additionally, the responses to these questionnaires may contain social desirability bias. The study is limited to university students. Since university students consist of individuals with a certain level of education, this may be a limitation. The cross-sectional nature of the study may also be a limitation for measuring multidimensional variables such as meaning in life and spiritual well-being.

Suggestions

Suggestions for both researchers and professionals in the field have been made based on the findings of the study. Researchers may investigate the variables used in this study in different age groups. The variables used in the study could also be explored with different research methods (e.g., experimental, longitudinal).

Mental health professionals, when working on the increasingly prevalent issue of gaming addiction, might consider enhancing spiritual well-being as a protective factor against this issue. Furthermore, they could focus on the meaning in life of individuals, as those who find life meaningful tend to be less addicted. They could conduct studies aimed at improving these two variables, especially among risk groups. School counselors could add modules to their psychoeducation programs to enhance spiritual well-being and meaning in

Acknowledgement. The authors thank all (the) participants for their willingness to take part in the study.

Ethical approval. Ethical approval was obtained from Sakarya University Social and Humanities Ethics Committee, Turkey (Approval Date: 06.10.2022, Approval Number: E-61923333-050.99-175484). Informed consent was obtained from all participants. This study followed the relevant guidelines and regulations of the Declaration of Helsinki.

Authors Contribution. Conceptualization: İ.T., Data Collection: A.U., Formal analysis: İ.T., Methodology: İ.T., A.U., Writing-Reviewing and Ed-

iting: İ.T., A.U., Writing- Original draft preparation: İ.T., A.U.

Peer-review. This research was rigorously evaluated by two or more experts in the field, and the study was refined based on their recommendations.

Funding. No funding support was received for this research.

Disclosure statement. The author reports no actual or potential conflict of interest.

Data Availability Statements. Data from this manuscript is available upon reasonable request from the author.

life as a means to reduce gaming addiction. A comprehensive approach to the variables in psychoeducation programs may not only serve as a protective factor for gaming addiction and risk groups but could also function as a preventive measure for other groups.

References

- Acar, H. (2014). Manevi iyi oluş ile dindarlık arasındaki ilişki üzerine bir değerlendirme. *Cumhuriyet Üniversitesi İlahiyat Fakültesi Dergisi*, 18(2), 391-412.
- Adler, A. (2010). *Yaşamın anlamı* (H. İlhan, Trans.). Alter. (Original work published 1931).
- Akın, A., & Taş, İ. (2015). Yaşam anlamı ölçeği: Geçerlik ve güvenirlik çalışması, *Turkish Studies*, 10(3) 27-36. <http://dx.doi.org/10.7827/TurkishStudies>
- Allahbakhshian, M., Jaffarpour, M., Parvizy, S., & Haghani, H. (2010). A survey on relationship between spiritual wellbeing and quality of life in multiple sclerosis patients. *Zahedan Journal of Research in Medical Sciences*, 12(3), 29-33. <https://www.sid.ir/en/Journal/ViewPaper.aspx?ID=183490>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (DSM-5®). American Psychiatric Pub.
- Ando, M., Morita, T., Miyashita, M., Sanjo, M., Kira, H., & Shima, Y. (2010). Effects of bereavement life review on spiritual well-being and depression. *Journal of Pain and Symptom Management*, 40(3), 453-459. <https://doi.org/10.1016/j.jpainsymman.2009.12.028>
- Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzone, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors*, 30(2), 252-262. <http://dx.doi.org/10.1037/adb0000160>
- Arıcak, O. T., Dinç, M., Yay, M., & Griffiths, M. D. (2018). İnternet oyun oynama bozukluğu ölçeği kısa formu'nun (IOOBÖ9-KF) Türkçe'ye uyarlanması: Geçerlik ve güvenirlik çalışması." *Addicta: The Turkish Journal on Addictions*, 5(4), 615-636. Doi: 10.15805/addicta.2018.5.4.0027
- Baysak, E., Yertutanol, F. D. K., Şahiner, İ. V., & Candansayar, S. (2020). Çevrimiçi oyun oynayanların sosyo-demografik özellikleri ve oyun bağımlılığının bazı psikososyal etmenlerle ilişkisi. *Klinik Psikiyatri Dergisi*, 23(2), 196-203. doi:10.5505/kpd.2020.10337
- Büyüköztürk, Ş., Akgün, Ö. E., Demirel, F., Karadeniz, Ş., & Çakmak, E. K. (2018). *Bilimsel araştırma yöntemleri* (25. Baskı). Pegem Akademi.
- Büyüköztürk, Ş. (2014). *Veri analizi el kitabı* (19. Baskı). Pegem Akademi.
- Braun, B., Kornhuber, J., & Lenz, B. (2016). Gaming and religion: The impact of spirituality and denomination. *Journal of Religion and Health*, 55(4), 1464-1471. <https://doi.org/10.1007/s10943-015-0152-0>
- Brunborg, G. S., Mentzoni, R. A., & Frøyland, L. R. (2014). Is video gaming, or video game addiction, associated with depression, academic achievement, heavy episodic drinking, or conduct problems? *Journal of Behavioral Addictions*, 3(1), 27-32. <https://doi.org/10.1556/jba.3.2014.002>
- Cotton, S. P., Levine, E. G., Fitzpatrick, C. M., Dold, K. H., & Targ, E. (1999). Exploring the relationships among spiritual well-being, quality of life, and psychological adjustment in women with breast cancer. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, 8(5), 429-438. [https://doi.org/10.1002/\(SICI\)1099-1611\(199909/10\)8:5<429::AID-PON420>3.0.CO;2-P](https://doi.org/10.1002/(SICI)1099-1611(199909/10)8:5<429::AID-PON420>3.0.CO;2-P)

- Çokluk, Ö., Şekercioğlu G., & Büyüköztürk Ş. (2012). *Sosyal bilimler için çok değişkenli istatistik SPSS ve LISREL uygulamaları*. (2. Baskı). Pegem Akademi.
- Demir, R., & Murat, M. (2017). Öğretmen adaylarının mutluluk, iyimserlik, yaşam anlamı ve yaşam doyumlarının incelenmesi. *OPUS International Journal of Society Researches*, 7(13), 347-378. <https://doi.org/10.26466/opus.347656>
- Dermatis, H., & Galanter, M. (2016). The role of twelve-step-related spirituality in addiction recovery. *Journal of Religion and Health*, 55(2), 510-521. <https://doi.org/10.1007/s10943-015-0019-4>
- Dogra, A. K., Basu, S., & Das, S. (2011). Impact of meaning in life and reasons for living to hope and suicidal ideation: A study among college students. *SIS Journal of Projective Psychology & Mental Health*, 18, 89-102.
- Durmuş, B., Yurtkoru, S. & Çinko, M. (2011). *Sosyal bilimlerde SPSS ile veri analizi* (4. bs.). Beta.
- Ekşi, H., & Kardaş, S. (2017). Spiritual well-being: Scale development and validation. *Spiritual Psychology and Counseling*, 2(1), 73-88. <https://doi.org/10.12738/spc.2017.1.0022>
- Ekşi, H., Boyalı, C., & Ümmet, D. (2019). Öğretmen adaylarının spiritüel iyi oluş ile yaşamda anlam değişkenlerinin psikolojik dayanıklılığı yordaması: Bir yapısal eşitlik modeli (yem) denemesi. *Kastamonu Eğitim Dergisi*, 27(4), 1695-1704. <https://doi.org/10.24106/kefdergi.3256>
- Frankl, V. E. (2009). İnsanın anlam arayışı (S. Budak Trans.). Okuyan Us. (Original work published 1946).
- Gentile, D. A., Bailey, K., Bavelier, D., Brockmyer, J. F., Cash, H., Coyne, S. M., Doan, A., Grant, D. S., Green, S., Griffiths, M., Markle, T., Petry, N. M., Prot, S., Rae, C. D., Rehbein, F., Rich, M., Sullivan, D., Woolley, E., & Young, K. (2017). Internet gaming disorder in children and adolescents. *Pediatrics*, 140(Supplement_2), S81-S85. <https://doi.org/10.1542/peds.2016-1758H>
- George, D., & Mallery, M. (2016). *IBM SPSS statistics 23 step by step a simple guide and reference* (14th edition). Routledge.
- Glasser, W. (2003). *Seçim teorisi* (M. İzmirli, Trans). Hayat. (Original work published 1999).
- Gomez, R., & Fisher, J. W. (2003). Domains of spiritual well-being and development and validation of the spiritual well-being questionnaire. *Personality and Individual Differences*, 35(8), 1975-1991. [https://doi.org/10.1016/S0191-8869\(03\)00045-X](https://doi.org/10.1016/S0191-8869(03)00045-X)
- Göldağ, B. (2018). Lise öğrencilerinin dijital oyun bağımlılık düzeylerinin demografik özelliklerine göre incelenmesi. *YYÜ Eğitim Fakültesi Dergisi*, 15(1), 1287-1315 <http://dx.doi.org/10.23891/efdyu.2018.105>
- Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use*, 10(4), 191-197. <https://doi.org/10.1080/14659890500114359>
- Gunuc, S. (2017). Peer influence in internet and digital game addicted adolescents: Is internet/digital game addiction contagious? *International Journal of High Risk Behaviors and Addiction*, 6(2). <https://doi.org/10.5812/ijhrba.33681>
- Hill, P. C., Pargament, K. I., Hood, R. W., McCullough, J. M. E., Swyers, J. P., Larson, D. B., & Zinnbauer, B. J. (2000). Conceptualizing religion and spirituality: Points of commonality, points of departure. *Journal for the Theory of Social Behaviour*, 30(1), 51-77. <https://doi.org/10.1111/1468-5914.00119>
- Hoefst, F., Watson, C. L., Kesler, S. R., Bettinger, K. E., & Reiss, A. L. (2008). Gender differences in the mesocorticolimbic system during computer game-play. *Journal of Psychiatric Research*, 42(4), 253-258. <https://doi.org/10.1016/j.jpsychires.2007.11.010>

- Horzum, M. B. (2011). İlköğretim öğrencilerinin bilgisayar oyunu bağımlılık düzeylerinin çeşitli değişkenlere göre incelenmesi. *Eğitim ve Bilim*, 36(159), 56-68. <https://egitimvebilim.ted.org.tr/index.php/EB/article/view/268/238>
- Jafari, E., Dehshiri, G. R., Eskandari, H., Najafi, M., Heshmati, R., & Hoseinifar, J. (2010). Spiritual well-being and mental health in university students. *Procedia-Social and Behavioral Sciences*, 5, 1477-1481. <https://doi.org/10.1016/j.sbspro.2010.07.311>
- Jim, H.S., Purnell, C. Q., Richardson, S. A., Golden-Kreutz, D., & Andersen, B. L. (2006). Measuring meaning in life following cancer. *Quality of Life Research*, 15, 1355-1371. <https://doi.org/10.1007/s11136-006-0028-6>
- Karasar, N. (1998). *Bilimsel araştırma yöntemleri* (8. Basım). Nobel.
- Kaya, A., Türk, N., Batmaz, H., & Griffiths, M. D. (2023). Online gaming addiction and basic psychological needs among adolescents: the mediating roles of meaning in life and responsibility. *International Journal of Mental Health and Addiction*, 1-25. <https://doi.org/10.1007/s11469-022-00994-9>
- Kılıç, K. M. (2019). Ergenlerde dijital oyun bağımlılığı, zorbalık bilişleri ve empati düzeyleri arasındaki ilişkiler. *Elementary Education Online*, 18(2), 549-562. <https://core.ac.uk/download/pdf/230035807.pdf>
- Koçak, M., & Traş, Z. (2021). Üniversite öğrencilerinde sosyal medya bağımlılığı ile sosyal ortamlarda gelişmeleri kaçırma korkusu ve yaşamın anlamı arasındaki yordayıcı ilişkiler. *MANAS Sosyal Araştırmalar Dergisi*, 10(3), 1618-1631. <https://doi.org/10.33206/mjss.893201>
- Korkmaz, Ö., & Korkmaz, Ö. (2019). Middle school students' game addictive levels, game habits and preferences. *Inonu University Journal of the Faculty of Education*, 20(3), 798-812. <https://doi.org/10.17679/inuefd.505200>
- Kul, A. Demir, R., & Katmer, A. N. (2020). Covid-19 salgını döneminde psikolojik sağlamlığın yordayıcısı olarak yaşam anlamı ve kaygı. *Turkish Studies*, 15(6), 695-719. <https://dx.doi.org/10.7827/TurkishStudies.44419>
- Kuss, D. J., & Griffiths, M. D. (2012). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health and Addiction*, 10(2), 278-296. <https://doi.org/10.1007/s11469-011-9318-5>
- Küçükşille, E. (2014). Çoklu doğrusal regresyon modeli. Ş. Kalaycı (Ed.), *SPSS uygulamalı çok değişkenli istatistik teknikleri içinde* (p. 257-270). (6. Baskı). Asil.
- Lee, Y. H., & Salman, A. (2016). Evaluation of using the Chinese version of the spirituality index of well-being (siwb) scale in Taiwanese elders. *Applied Nursing Research*, 32206-32211. <https://doi.org/10.1016/j.apnr.2016.07.008>
- Li, H., & Wang, S. (2013). The role of cognitive distortion in online game addiction among Chinese adolescents. *Children and Youth Services Review*, 35(9), 1468-1475. <https://doi.org/10.1016/j.childyouth.2013.05.021>
- Liu, S., Yu, C., Conner, B. T., Wang, S., Lai, W., & Zhang, W. (2017). Autistic traits and internet gaming addiction in Chinese children: The mediating effect of emotion regulation and school connectedness. *Research in Developmental Disabilities*, 68, 122-130. <https://doi.org/10.1016/j.ridd.2017.07.011>
- Baş, M. (2018). Ergenlerde dijital oyun bağımlılığı ile psikolojik ve davranışsal bulgular arasındaki ilişkinin incelenmesi. *Atlas Journal*, 4(9), 492-498. <https://doi.org/10.31568/atlas.105>

- Mills, P., Wilson, K., Iqbal, N., Iqbal, F., Alvarez, M., Pung, M., & Redwine, L. (2015). Depressive symptoms and spiritual wellbeing in asymptomatic heart failure patients. *Journal of Behavioral Medicine*, 38(3), 407–415. <https://doi.org/10.1007/s10865-014-9615-0>
- McClain, C. S., Rosenfeld, B., & Breitbart, W. (2003). Effect of spiritual well-being on end-of-life despair in terminally-ill cancer patients. *The Lancet*, 361(9369), 1603-1607. [https://doi.org/10.1016/S0140-6736\(03\)13310-7](https://doi.org/10.1016/S0140-6736(03)13310-7)
- Opatz, J. P. (1986). Stevens Point: A longstanding program for students at a Midwestern university. *American Journal of Health Promotion*, 1(1), 60-67. <https://doi.org/10.4278/0890-1171-1.1.60>
- Öztürk, M., & Karademir B. F. (2024). Teknoloji bağımlılığının çalışma motivasyonuna etkisi. *Süleyman Demirel Üniversitesi İnsan Kaynakları Yönetimi Dergisi*, 3(2), 68-83. <https://dergipark.org.tr/pub/sduiky>
- Pong, H. K. (2024). The relationship between spiritual well-being and game addiction of youths: a cross-sectional study. *Journal of Beliefs & Values*, 45(1), 1-20. <https://doi.org/10.1080/13617672.2022.2152262>
- Pontes, H. M., & Griffiths, M. D. (2015). Measuring DSM-5 internet gaming disorder: Development and validation of a short psychometric scale. *Computers in Human Behavior*, 45, 137-143. <https://doi.org/10.1016/j.chb.2014.12.006>
- Rohde, G., Kersten, C., Vistad, I., & Mesel, T. (2017). Spiritual well-being in patients with metastatic colorectal cancer receiving noncurative chemotherapy: a qualitative study. *Cancer Nursing*, 40(3), 209. doi:10.1097/NCC.0000000000000385
- Ross, L. (1995). The spiritual dimension: its importance to patients' health, well-being and quality of life and its implications for nursing practice. *International Journal of Nursing Studies*, 32(5), 457-468. [https://doi.org/10.1016/0020-7489\(95\)00007-K](https://doi.org/10.1016/0020-7489(95)00007-K)
- Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, 9, 1–28. https://doi.org/10.1207/s15327965pli0901_1
- Salman, A., & Lee, Y. H. (2019). Spiritual practices and effects of spiritual well-being and depression on elders' self-perceived health. *Applied Nursing Research*, 48, 68-74. <https://doi.org/10.1016/j.apnr.2019.05.018>
- Schnell, T. (2009). The Sources of meaning in life questionnaire (SoMe): Relations to demographics and well-being. *The Journal of Positive Psychology*, 4 (6), 483-499. <https://doi.org/10.1080/17439760903271074>
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80-93.
- Şimşir, Z., Hamarta, E., & Dilmaç, B. (2020). Stresle başa çıkmanın yordayıcısı olarak yaşamın anlamı ve manevi deneyim. *Kalem Eğitim ve İnsan Bilimleri Dergisi*, 10(2), 509-528. doi:10.23863/kalem.2020.165
- Taş, İ., Eker, H., & Anlı, G. (2014). Ortaöğretim öğrencilerinin internet ve oyun bağımlılık düzeylerinin incelenmesi. *Online Journal of Technology Addiction and Cyberbullying*, 1(2), 37-57.
- Tas, İ., & İskender, M. (2018). An examination of meaning in life, satisfaction with life, self-concept and locus of control among teachers. *Journal of Education and Training Studies*, 6(1), 21-31. <https://doi.org/10.11114/jets.v6i1.2773>
- Taş, İ. (2022). Spiritual well-being as a mediator between internet addiction and alienation. *Spiritual Psychology and Counseling*, 7(3), 281–300. <https://dx.doi.org/10.37898/spiritualpc.1171408>

- Taş, İ., & Güneş, Z. (2019). 8-12 yaş arası çocuklarda bilgisayar oyun bağımlılığı, aleksitimi, sosyal anksiyete, yaş ve cinsiyetin incelenmesi. *Klinik Psikiyatri*, 22(1), 83-92. <https://doi.org/10.5505/kpd.2018.17894>
- Tejeiro Salguero, R. A., & Morán, R. M. B. (2002). Measuring problem video game playing in adolescents. *Addiction*, 97(12), 1601-1606. <https://doi.org/10.1046/j.1360-0443.2002.00218.x>
- Torres-Rodríguez, A., Griffiths, M. D., & Carbonell, X. (2017). The treatment of Internet Gaming Disorder: A brief overview of the PIPATIC program. *International Journal of Mental Health and Addiction*, 16, 1000-1015. <https://doi.org/10.1007/s11469-017-9825-0>
- Utomo, K. D. M., & Marianta, Y. I. W. (2023). The role of social support and spiritual well-being in predicting Internet addiction among Indonesian seminarians. *Pastoral Psychology*, 1-16. <https://doi.org/10.1007/s11089-023-01088-6>
- Wittek, C. T., Finserås, T. R., Pallesen, S., Mentzoni, R. A., Hans, D., Griffiths, M., & Molde, H. (2016). Prevalence and predictors of video game addiction: A study based on a national representative sample of gamers. *International Journal of Mental Health and Addiction*, 14, 672-686. <https://doi.org/10.1007/s11469-015-9592-8>
- Wood, M., Center, H., & Parenteau, S. C. (2016). Social media addiction and psychological adjustment: Religiosity and spirituality in the age of social media. *Mental Health, Religion & Culture*, 19(9), 972-983. <https://doi.org/10.1080/13674676.2017.1300791>
- World Health Organization. (2019, 28 July). *ICD-11 for mortality and morbidity statistics*. <https://icd.who.int/browse/2024-01/mms/en#1448597234>
- Yeşilyurt, F. (2020). Gaming duration and preferences: Relationships with psychiatric health, gaming addiction scores and academic success in high school students. *International Education Studies*, 13(12), 111-119. <https://doi.org/10.5539/ies.v13n12p111>
- Young, K. (2009). Understanding online gaming addiction and treatment issues for adolescents. *The American Journal of Family Therapy*, 37(5), 355-372. <https://doi.org/10.1080/01926180902942191>
- Zandi P. A., & Mirzaeidoostan, Z. (2019). Online game addiction relationship with cognitive distortion, parenting style, and narcissistic personality traits in students. *Iranian Journal of Psychiatry and Clinical Psychology*, 25(1), 72-83.
- Zhao, H., Li, X., Zhou, J., Nie, Q., & Zhou, J. (2020). The relationship between bullying victimization and online game addiction among Chinese early adolescents: The potential role of meaning in life and gender differences. *Children and Youth Services Review*, 116, 105261. <https://doi.org/10.1016/j.childyouth.2020.105261>



Exploring the Evil Eye Beliefs: A Quantitative Study

Kutlu Kağan Türkarlan¹
Ankara Medipol University

Ekin Doğa Kozak²
Hacettepe University

¹ PhD, Department Psychology, Ankara Medipol University, Ankara, 06050 Türkiye. Email: kutlu.turkarlan@ankaramedipol.edu.tr

² Department of Psychology, Hacettepe University, Çankaya, Ankara, 06800 Türkiye. Email: ekindogakozak@hacettepe.edu.tr

Abstract

The concept of the evil eye refers to the belief that gazes of individuals with envious feelings can have harmful effects on living and non-living entities. On this subject, there appears to be very few quantitative studies in literature. The aim of the present study was to investigate evil eye beliefs (EEBs) in Türkiye. A total of 601 participants (68.55% female, $M_{age} = 27.92$, $SD = 10.03$) completed measures of demographic information, benign envy, malicious envy, nonreligiousness-nonspirituality, and paranormal beliefs. The descriptive results showed that 58.24% of the participants endorsed the statement “I believe in the evil eye” and females had significantly stronger EEBs than males ($d = 1.01$ $p < .001$). The multiple regression analysis revealed that benign envy, malicious envy, nonreligiousness-nonspirituality, and nonreligious paranormal beliefs were significant predictors of EEBs, explaining 60.50% of the variance in EEBs. Moreover, nonreligiousness-nonspirituality was a significant moderator in the relationship between nonreligious paranormal beliefs and EEBs, suggesting that nonreligious paranormal beliefs may be more essential motivators of EEBs for individuals with lower levels of religiousness-spirituality. The results and limitations were discussed and suggestions for future studies were proposed.

Keywords:

The evil eye • Envy • Religiousness • Spirituality • Paranormal beliefs

Corresponding author:
Kutlu Kağan Türkarlan
E-mail: kutlu.turkarlan@
ankaramedipol.edu.tr

eISSN: 2458-9675

Received: 18.11.2024

Revision: 29.12.2024

Accepted: 09.02.2025

©Copyright 2025 by Author(s)

Citation: Türkarlan, K. K. & Kozak, E. D. (2025). Exploring the evil eye beliefs: A quantitative study. *Spiritual Psychology and Counseling*, 10(2), 313–328. <http://doi.org/10.37898/spiritualpc.1587623>

Introduction

The monitoring of others' gaze may have played a crucial role in the evolution of social interactions (Cañigual & Hamilton, 2019). Previous research has shown that individuals tend to focus their gaze on the eyes rather than other parts of the human face (Hessels, 2020). Hood et al. (1998) revealed that infants as young as three months possess the ability to discern gaze direction, which subsequently influences their attention patterns. The direction of others' gazes can provide valuable insights into their attention, potential sources of interest, and imminent threats (Hadjikhani et al., 2008). In this context, evil eye beliefs (EEBs), which are closely associated with gazes, fall into the side of the potential danger.

The concept of the evil eye originates from a supernatural belief that certain individuals or beings, driven by envy, possess the ability to inflict harm or destruction upon a person, newborn, livestock, crops, or other entities. (Berger, 2012; Elliott, 2016). As a consequence of the evil eye, livestock may perish, crops may wither and rot, and individuals may suffer from mental health issues (Berger 2012; Hamid, 2012). It is widely believed that the evil eye can manifest through either direct eye contact or verbal compliments (Holden, 2000). According to Elliott (2016), infants, pregnant or breastfeeding women, and exceptionally attractive individuals are considered to be more susceptible to the influence of the evil eye. Moreover, the evil eye can be cast both intentionally and unintentionally (Begiç, 2020). It is also worth noting that it is possible to cast the evil eye on other individuals without being physically close to them (Rassool, 2018). While EEBs' origin can be traced back to ancient civilizations such as the Sumerians, Egyptians, Greeks, and Romans, EEBs are still present in the modern world (Elliott, 2016), especially in Türkiye. A study conducted among Turkish pediatric nurses revealed that 37% of them held the belief that the evil eye can cause pain (Beybut et al., 2009). Additionally, 54% of the nurses utilized prayer as a protective measure against the evil eye, 10.8% carried evil eye beads and 5.4% employed both prayer and evil eye beads. Another study conducted with university students showed that 32.06% of the participants reported that they carry evil eye beads (Ögenler & Yapıcı, 2012). Two more recent studies conducted in Türkiye found that approximately 84% (Çınarer, 2022; Türkmenoğlu-Berkan & Tuncer-Manzakoğlu, 2016) of the participants reported believing in the evil eye.

The evil eye encompasses a complicated set of beliefs and practices employed for protection, including prayers, rituals, the wearing of amulets, and the execution of specific hand gestures. (Elliott, 2016). Since ancient times, individuals have believed that the evil eye comes from eyes and have used eye-shaped figures for protection (Koç & Temür, 2014). To state differently, it was widely believed that the detrimental effects of the evil eye could be mitigated or redirected by utilizing an eye-shaped figure or image that was susceptible to and capable of absorbing

the negative influences emanating from the evil eye. In Mediterranean cultures, particularly in Italy, individuals use the hand gesture “*corna*” (the sign of the horn) to protect themselves from the “*malocchio*” (evil eye) (Bohigian, 1997). Irish people may say “God bless it” (Dundes, 1992) to protect individuals when they are praised, while Jewish people prefer to say “*kenehora*” (without evil) (Berger, 2013). In India, people hang lemons and chilies on their door to prevent the evil eye (An et al., 2019). Finally, Turkish people frequently rely on reciting Quranic verses, using amulets believed to ward off the evil eye, and uttering the phrase “*mashallah*” (meaning Allah has willed it) to protect themselves and their loved ones from negative influences of the evil eye (Bayar, 2020; Begiç, 2020; Şevli, 2023). Koç and Temür (2014) asserted that the utilization of eye symbols, such as evil eye beads, throughout history and in contemporary societies originates from a primal desire to exert control over uncontrollable phenomena. Consequently, these beliefs and practices serve as protective mechanisms against inherent natural uncertainties, apprehensions, economic challenges, familial conflicts, and psychosocial obstacles.

Purpose

Although there were several studies investigating the role of gazing in social interactions and perception by referring to the evil eye conceptually (Alper et al., 2019; Giacomantonio et al., 2018; Kuin et al., 2017; van de Ven et al., 2010; Vargas, 2021) or exploring economic origins of EEBs (Gershman, 2015), only very few quantitative studies, to our knowledge, has directly examined EEBs in psychology. We conducted a preliminary study which investigated the relationship between EEBs and possibly related concepts such as benign envy (BE), malicious envy (ME), nonreligiousness-nonspirituality (NRNS), and nonreligious paranormal beliefs (NRPBs). First of all, we decided to examine the relationship between EEBs and envy, because the emotion of envy has been culturally believed to be a proximal motivator of the evil eye (Elliott, 2016). Envy is an emotional response triggered by the perception of other individuals possessing desirable possessions, achieving success, or exhibiting certain personal attributes (Çırpan & Özdoğru, 2017). This response often involves a desire to either diminish or eliminate the perceived advantages (Spielman, 1971). In many cultures, envy is regarded as a negative emotion and is associated with feelings of resentment and hostility (Elliott, 2016). When someone experiences envy towards another person, it is believed that their negative energy or ill can be projected through their gazes, leading to the curse of the evil eye (Elliott, 2016; Holden, 2000). In his article *Uncanny*, Freud (1919) also asserted that EEBs may be originated from the projection of one’s envy to others. Apart from envy, we also preferred to evaluate the relationship between EEBs, NRNS, and NRPBs. This is because NRNS and NRPBs are essentially related to EEBs. The evil eye is a belief rooted in a supernatural understanding of the world and is intertwined with religious beliefs and practices across the globe (Berger, 2013; Elliott, 2016; Rassool, 2018).

Based on the information about EEBs related concepts, we investigated possible gender differences on EEBs as the findings have shown that females are more likely to believe in the paranormal (Aarnio & Lindeman, 2005; Rice, 2003; Roohee & Sunbal, 2023). Furthermore, we conducted a multiple regression analysis to examine whether BE, ME, NRNS, and NRPBs can predict EEBs. Finally, we examined the possible moderator role of NRNS in the relationship between NRPBs and EEBs.

The hypotheses of the present study were:

- H1. Females would have higher EEBs scores than males.
- H2. Higher BE would predict higher EEBs.
- H3. Higher ME would predict higher EEBs.
- H4. Higher NRNS would predict lower EEBs.
- H5. Higher NRPBs would predict higher EEBs.
- H6. NRNS would moderate the relationship between NRPBs and EEBs.

Method

Participants

A total of 601 participants (412 females, 68.55%) were recruited for the study with convenience sampling via announcements in social media and the internet. The mean age of the sample was 27.92 (*SD* = 10.03). More than half of the participants (59.40%) reported having university-level education. In terms of employment status, only 36.44% of the participants were employed. The majority of the participants (78.20%) stated their marital status as single. Finally, approximately half of the participants (47.92%) were from middle socio-economic status (SES). The details regarding the demographic characteristics of the participants can be seen in Table 1.

Table 1.
The demographic characteristic of the participants

	<i>M</i>	<i>SD</i>
Age	27.92	10.03
Traditional religious beliefs (Islam)	31.45	12.03
	<i>N</i>	%
Gender		
Female	412	68.55
Male	189	31.45

Table 1.
The demographic characteristic of the participants

	<i>M</i>	<i>SD</i>
Education		
<i>High School</i>	46	7.65
<i>University</i>	382	63.56
<i>Master's degree</i>	117	19.47
<i>PhD.</i>	56	9.32
Employment		
<i>No</i>	382	63.56
<i>Yes</i>	219	36.44
Marital Status		
<i>Single</i>	470	78.20
<i>Married</i>	114	18.97
<i>Divorced</i>	17	2.83
Socioeconomic Status		
<i>Very Low</i>	78	12.98
<i>Low</i>	135	22.46
<i>Middle</i>	288	47.92
<i>High</i>	99	16.47
<i>Very High</i>	1	.17

Instruments

Demographic Information Form

A demographic information form was used to examine the characteristics of the participants such as age, gender, education level, employment status and marital status. In addition, socioeconomic status of the participants was measured with the question of “How would you describe your income situation when you think about your monthly earnings?”.

Benign and Malicious Envy Scale (BEMAS)

Lange and Crusius (2015) developed the Benign and Malicious Envy Scale to measure dispositional BE (emulation) and ME (envy). Participants rate each item on a 6-point Likert-type scale (1 = Strongly disagree; 6 = Strongly agree). Higher scores indicate higher levels of BE and ME. The scale was adapted to Turkish by Çırpan and Özdoğur (2017). The internal consistency coefficients for BE and ME were .78 and .86, respectively. In the present study, the BEMAS was used to assess BE and ME of the participants.

NonReligious-NonSpiritual Scale (NRNSS)

The NonReligious-NonSpiritual Scale was developed by Cragun et al. (2015) to

measure the religiosity and spirituality levels of individuals. Participants are asked to rate their degree of agreement with each item on a 5-point Likert-type scale (1 Strongly agree; 5 = Strongly disagree). Higher scores indicate lower religiousness-spirituality. The NRNSS was adapted to Turkish by Sevinç et al. (2015). Cronbach's alpha coefficient of the Turkish form was reported as .96. In the current study, the NRNSS was used to assess religiosity and spirituality levels of the participants.

Paranomal Beliefs Scale (PBS)

The Paranormal Beliefs Scale was developed by Tobacyk and Milford (1983) to assess the paranormal and religious beliefs with seven subscale which are traditional religious beliefs, psi, witchcraft, superstition, spiritualism, extraordinary life forms, and precognition. Participants score each item on a 5-point Likert-type scale (1 = Strongly disagree; 5 = Strongly agree). Higher scores indicate higher endorsement of paranormal beliefs. The adaptation study of PBS to Turkish culture was conducted by Arslan (2010). The internal consistency coefficient of the total scale was reported as .85. In the present study, we used six subscales of the PBS, excluding traditional religious beliefs because the subscale has an item about the evil eye and there was a high correlation between the subscale and the NRNSS. ($r = .88$), suggesting that the NRNSS measures the same construct. Traditional religious beliefs subscale was used to assess participants belief in Islam.

Assessment of The Evil Eye Beliefs

Since there were no measure of EEBs in Turkish, we assessed EEBs with five statements pertaining to the evil eye. The instruction of the statements read as "The evil eye is a belief that individuals can have a negative effect on living or non-living beings through their gaze. Please indicate to what extent you agree with the following statements about the belief in the evil eye.". The five statements used in the present study were rated on a 5-point scale (1 = Strongly Disagree; 5 = Strongly Agree) and can be seen in Table 2. In the present study, the total score of responses to these five

Table 2
The responses of the participants to the evil eye beliefs statements

	Strongly Disagree (1)	Disagree (2)	Not sure (3)	Agree (4)	Strongly Agree (5)
	% (f)				
1) I believe in the evil eye.	17.80(107)	7.82(47)	16.14(97)	35.11(211)	23.13(139)
2) I use some practices (using evil eye beads, praying, saying "mashallah", etc.) to protect myself from the evil eye.	24.63(148)	10.98(66)	12.98(78)	35.94(216)	15.47(93)
3) If a person looks at someone with admiration or envy, it can cast the evil eye.	19.47(117)	11.15(67)	18.64(112)	34.78(209)	15.97(96)
4) Verbal expression of one's admiration or envy can cast the evil eye.	22.46(135)	13.31(80)	22.46(135)	28.62(172)	13.15(79)
5) One can cast the evil eye to oneself.	22.63(136)	12.81(77)	17.80(107)	30.62(184)	16.14(97)

statements was used to assess EEBs of the participants.

Procedure

The ethical approval for the study was obtained from the Human Subjects Ethics Committee of the Middle East Technical University (Protocol No. 145-ODTU-2021). The package of questionnaires, including the demographic information form and measures of the study were administered to participants online through the Qualtrics Survey system in a counter-balanced order. The participants received comprehensive information on the research's goals, confidentiality procedures, and their right to leave the study at any time. It took about 20 minutes to complete the study.

Statistical Analysis

The analyses of the study were conducted via SPSS 25 (data cleaning and moderation analysis) and JASP 0.19.3 (correlations and multiple regression). Gender differences in EEBs were examined with Welch t-test due to violation of the equal variance assumption. Equality of variance assumption was assessed with Levene's test, while normality was evaluated with skewness (2.0, -2.0) and kurtosis (7.0, -7.0) values. A multiple regression was conducted to predict EEBs based on BE, ME, NRNS, and NRPBs. The data were screened for assumptions of regression and multiple outliers. The assumptions of regression were checked by scatter plot, Q-Q plot standardized residuals, Durbin-Watson value of 2.00, residuals versus predicted plot, and tolerance ($> .01$) and VIF ($< .10$) values. PROCESS macro (Hayes, 2017) was used to examine the moderator role of NRNS in the relationship between NRPBs and EEBs.

Findings

Descriptive statistics and correlation analyses

The results regarding the participants' endorsement of EEBs can be seen in Table 2. A total of 58.24% of the participants responded to the statement "I believe in the evil eye" as "Agree" (35.11%) and "Strongly Agree" (23.13%). In terms of gender differences, a Welch t-test analysis ($n = 601$) showed that females ($M = 17.42$, $SD = 5.34$) have a significantly stronger belief in the evil eye than males ($M = 11.72$, $SD = 6.33$), $t(599) = 11.44$, $p < .001$, $d = 1.01$. The descriptive results of responses to the PBS can be found in Table 3.

Table 3*The responses of the participants to the Turkish Paranormal Beliefs Scale*

	1 - Strong- ly Disagree	2 - Dis- agree	3 - Uncer- tain	4 - Agree	5 - Slightly Agree
	% (N)				
1) The soul continues to exist though the body may die.	13.48(81)	10.65(64)	19.47(117)	33.11(199)	23.30(140)
2) Some individuals are able to levitate (lift) objects through mental forces.	40.43(243)	27.29(164)	16.81(101)	12.98(78)	2.50(15)
3) There really is black magic that harms people.	25.79(155)	19.80(119)	14.64(88)	31.28(188)	8.49(51)
4) A black cat brings bad luck.	77.21(464)	16.81(101)	2.33(14)	3.33(20)	0.33(2)
5) Your mind or soul can leave your body and travel.	23.63(142)	24.79(149)	20.13(121)	25.79(155)	5.66(34)
6) From time to time there are alien beings (UFOs) from other planets that visit our world.	23.13(139)	18.97(114)	26.79(161)	21.96(132)	9.151(55)
7) Astrology (the science of making judgments from the movements of the stars) is an accurate way of predicting the future.	33.44(201)	26.46(159)	11.81(71)	24.46(147)	3.83(23)
8) There is a being called Satan.	20.63(124)	13.81(83)	13.31(80)	25.96(156)	26.29(158)
9) The movement of objects through psychic powers, does exist.	39.93(240)	26.46(159)	16.31(98)	14.48(87)	2.83(17)
10) Wizards still exist.	26.29(158)	15.97(96)	15.97(96)	32.11(193)	9.65(58)
11) It is bad luck to pass under the ladder.	79.20(476)	16.47(99)	2.66(16)	1.50(9)	0.17(1)
12) During altered states, such as sleep or trances, the spirit can leave the body.	28.79(173)	19.80(119)	20.63(124)	26.12(157)	4.66(28)
13) Blessings fall on the house where Hızır visits.	36.11(217)	14.81(89)	21.80(131)	22.80(137)	4.49(27)
14) Horoscopes (knowing the position of the stars at the time of one's birth, horoscope) give us accurate information about one's future.	36.27(218)	24.63(148)	12.65(76)	23.30(140)	3.16(19)
15) I believe in Allah.	12.31(74)	9.82(59)	8.15(49)	20.63(124)	49.09(295)
16) Even though we cannot see them with the naked eye, beings such as jinn do exist.	20.30(122)	9.65(58)	16.14(97)	29.29(176)	24.63(148)
17) It is possible to cast a spell on a person by using certain magical formulas and words.	29.12(175)	18.97(114)	16.64(100)	26.29(158)	8.99(54)
18) It is a fact that people with evil eyes can curse other people.	21.46(129)	11.31(68)	10.82(65)	39.10(235)	17.30(104)
19) There is life on other planets.	3.99(24)	5.82(35)	28.12(169)	39.10(235)	22.96(138)
20) Some psychics can predict the future.	37.27(224)	22.46(135)	15.64(94)	22.96(138)	1.66(10)
21) There is a heaven and a hell.	17.80(107)	9.82(59)	16.64(100)	19.97(120)	35.77(215)
22) It is impossible to read the other person's mind.	4.99(30)	33.61(202)	21.13(127)	26.62(160)	13.64(82)
23) There are actual cases of witchcraft.	27.62(166)	17.30(104)	20.63(124)	28.12(169)	6.32(38)
24) Some people have an unexplained ability to predict the future.	25.79(155)	17.64(106)	18.47(111)	32.78(197)	5.32(32)
25) Blessed people can help people by giving their blessings and prayers.	31.12(187)	17.80(107)	15.14(91)	29.62(178)	6.32(38)
26) Angels are beings of light.	23.96(144)	7.49(45)	15.31(92)	30.78(185)	22.46(135)
27) The miracles of the saints are real.	29.78(179)	12.15(73)	22.46(135)	25.29(152)	10.32(62)

Note. Traditional religious beliefs subscale includes items of 1, 8, 13, 15, 16, 18, 21, 25, 26, 27.

The Pearson correlations among the study variables were reported in Table 4. The results of the correlation analyses yielded that individuals with higher EEBs were more likely to emulate and envy other individuals and have stronger nonreligious beliefs in paranormal. On the other hand, individuals with lower EEBs were less likely to be religious-spiritual.

Table 4
The correlations among the study variables (N = 601)

Variables	1	2	3	4	5
1) Evil Eye Beliefs	-				
2) Benign Envy	.16***	-			
3) Malicious Envy	.13**	.36***	-		
4) Nonreligiousness-nonspirituality	-.65***	-.03	.05	-	
5) Nonreligious Paranormal Beliefs [†]	.68***	.08*	.11*	-.51***	-
<i>M</i>	15.63	17.52	9.41	48.85	44.12
<i>SD</i>	6.26	6.00	4.85	17.02	13.04
<i>Min</i>	5.00	5.00	5.00	17.00	19.00
<i>Max</i>	25.00	30.00	30.00	80.00	78.00
<i>α</i>	.94	.81	.84	.93	.89

Note. * $p < .01$, ** $p < .01$, *** $p < .001$. [†]Traditional religious beliefs subscale was excluded.

Multiple Regression

Four outliers, detected by Mahalanobis distance, were removed from further analyses and the final sample consisted of 597 participants. All assumptions of linear regression (i.e., linearity, normality, homoscedasticity, and multicollinearity) were met. The model consisted of BE, ME, NRNS, and NRPBs was significant and explained %60.50 of the variance in EEBs, $F(4, 592) = 227.09, p < .001$. All variables were significant predictors of EEBs. Higher BE, ME and NRPBs predicted higher EEBs, but higher NRNS predicted lower EEBs. The details of the regression model can be seen in Table 5.

Table 5
The multiple regression model predicting evil eye beliefs (N = 596)

	ΔR^2	<i>b</i>	<i>SE</i>	β	<i>t</i>
Model	.61				
Intercept		11.98	1.13		10.64***
Benign Envy		0.10	0.03	0.09	3.33***
Malicious Envy		0.10	0.04	0.07	2.63**
Nonreligiousness-nonspirituality		-.16	0.01	-0.44	-14.41***
Nonreligious Paranormal Beliefs		0.20	0.01	0.43	13.82***

Note. ** $p < .01$, *** $p < .001$. [†]Traditional religious beliefs subscale was excluded.

Moderation Analysis

The final sample was 593 after the removal of eight multiple outliers identified by Mahalanobis distance. To test moderator role of NRNS in the relationship between NRPBs and EEBs, a moderation analysis was conducted using Hayes Macro. All

assumptions of linear regression (i.e., linearity, normality, homoscedasticity, and multicollinearity) were met. NRNS, NRPBs, and EEBs were included in the model. The overall model accounted for 60.31% of variance in EEBs, $F(3, 589) = 298.389$, $p < .001$. Conditional effect of NRNS in the relationship between NRPBs and EEBs was significant, $\Delta R^2 = .01$, $F(1, 589) = 13.03$, $p < .001$. The interactions were probed with pick a point method for NRNS (-1 SD, mean, and 1 SD). There were no statistical significance transition points within the observed range of the moderator variable found using the Johnson-Neyman method. The results revealed that the conditional effects for NRPBs at -1 SD, mean, and 1 SD of NRNS scores were 0.16 ($p < .001$), 0.21 ($p < .001$) and 0.27 ($p < .001$), respectively (see Table 6).

Table 6
Conditional effects of nonreligious paranormal beliefs on evil eye beliefs at values of nonreligiousness-non-spirituality

Nonreligiousness-nonspirituality	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	LLCI	ULCI
-1 <i>SD</i>	0.16	.02	7.92	< .001	0.12	0.20
Mean	0.21	.01	14.18	< .001	0.18	0.24
1 <i>SD</i>	0.25	.02	13.02	< .001	0.22	0.29

Discussion

To our knowledge, the present study was one of the first quantitative studies investigating EEBs in psychology. The descriptive results revealed that approximately 58.24% of participants believe in the evil eye. Despite with a lower percentage, this finding was in line with previous findings in Türkiye (Çınarar, 2022; Türkmenoğlu-Berkan & Tuncer-Manzakoğlu, 2016) and revealed that EEBs are still prevalent among Turkish population. Comparison based on gender supported the first hypothesis and indicated that females believe EEBs more strongly than males. Previous studies on gender differences regarding PBs also showed similar results across cultures (Aarnio & Lindeman, 2005; Mowen et al., 2022; Remsburg et al., 2024; Rice, 2003; Roohee & Sunbal, 2023; Silva, 2023; Ward & King, 2020). It was argued that combination of psychological, social, and cultural factors such as female’s higher reliance on intuition (Ward & King, 2020) or higher marginalization in society (Irwin, 1993) and men’s higher reliance on rationality (Maqsood et al., 2018) or their higher propensity for masculinity (Silva, 2023), may play roles in the gender difference regarding PBs. This gender difference may also apply to EEBs, one of the prevalent PBs in Türkiye.

The results of regression analysis indicated that higher BE, ME and NRPBs predicted higher EEBs, while higher NRNS predicted lower EEBs. The overall model significantly explained 60.50% of variance in EEBs. The findings regarding the relationships between BE, ME, and EEBs supported the second and third hypotheses and the cultural notion linking envious feelings to EEBs (Bayar, 2020). In his comprehensive cross-cultural study of the evil eye, Elliot (2016) commented

that “this association of Evil Eye and envy is one of the most pronounced and constant features of the Evil Eye belief complex over time and across cultures.” (p. 109). Individuals having envious feelings towards other individuals may fear that others have similar feelings towards them, felt threatened, and this may eventually exacerbate their EEBs. Regarding the role of projection mechanisms in the evil eye, it could be argued that cognitive efforts to suppress thoughts about a particular negative trait such as being envious inadvertently may make this trait highly accessible, subsequently shaping the perception of others (Baumeister et al., 1998). Despite the present findings associating envy and the evil eye, Freud’s hypothesis that EEBs is driven by individuals’ projection of their envy to other individuals require further investigation.

Unsurprisingly, NRNS and NRPBs were significant predictors of EEBs, supporting the fourth and fifth hypotheses. Previous studies revealed significant associations between religiosity, spirituality, and PBs (Riekk et al., 2013; Schofield et al., 2016; Singh & Dangwal, 2019). In this context, EEBs can be regarded as paranormal beliefs. Moreover, the cultural notions and practices pertaining to EEBs are nested in religious practices and beliefs in Türkiye (Çıblak, 2004), such as saying “*mashallah*” or using amulets with verses of the Quran (Begiç, 2020). This relationship between the evil eye and religious practices and beliefs extends to other religions and cultures, including ancient Mesopotamian, Egyptian, and Greek cultures (Koç & Temür, 2014) and “the sacred literature of the Hebrew and Christian Bibles, the parabiblical writings, the Jewish Mishnah, Talmud, and rabbinic texts, and the writings of the Christian church fathers.” (Elliot, 2016, p. 45). In addition, the results of the moderation analysis showed that NRPBs had a stronger predictor power on EEBs when the levels of NRNS were higher, supporting the sixth hypothesis. This finding may suggest that when individuals have lower levels of religiousness-spirituality, EEBs may be motivated more by their NRPBs.

Limitations

There are several limitations of the present study that should be considered when interpreting the results. Firstly, the majority of the sample consisted of young, female, university students which limits the generalizability of the findings to other populations. Future studies, therefore, may use more balanced samples in terms of age, gender, education level, and SES. Secondly, the social desirability bias was not controlled in the present study, and it may have influenced the measurement of envy. Future research should therefore seek to address this issue by using measures to control social desirability. Thirdly, EEBs were measured with five statements due to the lack of a scale to measure EEBs in Turkish. Further research is needed to develop a comprehensive scale that measures EEBs with all aspects. Finally, the cross-sectional nature of the present study prevents inferences regarding the causal

relationship between study variables. Therefore, future studies can use experimental and longitudinal methods to investigate the relationships between study variables.

Conclusion and Suggestions

To sum up, the present study suggests that a remarkable percentage of individuals in Türkiye still believe the evil eye. On this notion, Begiç stated (2020, p. 186): “In Turkish culture, the belief in Central Asian Shamanism and the belief in the evil eye, which has been passed down to the present day in social life after the acceptance of Islam, continues with different practices in various regions of Anatolia.”. The belief in the evil eye manifests itself in many aspects of Turkish culture from architecture (Budak, 2020) to music (Koç et al., 2016). Türkarslan and Kozak (2024) showed that the evil eye can even become a topic in psychotherapies with Turkish clients. Clients may talk about their beliefs in the evil eye, explain their bad lucks in terms of the evil eye or attribute their difficulties to mention their good fortunes to the evil eye (Türkarslan & Kozak, 2024). The present study suggests that the evil eye related issues in psychotherapy can be understood and discussed in relation to envious feelings, religiosity-spirituality, and non-religious paranormal beliefs of the clients.

We believe that the evil eye being embedded in Turkish culture makes EEBs an important and interesting research topic. Further studies of EEBs can include variables regarding personality, cultural orientations, and economics. For example, in societies

Acknowledgments. The authors express their gratitude to the participants, as well as to the editor and reviewers, for their insightful feedback that contributed to enhancing the quality of the manuscript.

Ethics approval. This research meets the ethical guidelines, including adherence to the legal requirements of the study country. Ethical committee approval was sought where necessary and is acknowledged within the text of the submitted.

Authors' contributions. All authors contributed to the study conception and design, material preparation, data

collection and analysis. All authors read and approved the final manuscript.

Peer-review. Externally peer-reviewed.

Funding. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Disclosure statement. The authors declare that they have no conflicts of interest.

Data Availability Statements. The data-sets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

with visible economic disparities, envy is a natural response to perceived imbalances, which can fuel beliefs in the evil eye (Ben-Ze’ev, 1992). However, to conduct further quantitative studies, there is a strong need for development of a comprehensive scale that measures various aspects of EEBs in Turkish.

References

- Aarnio, K., & Lindeman, M. (2005). Paranormal beliefs, education, and thinking styles. *Personality and Individual Differences*, 39(7), 1227–1236. <https://doi.org/10.1016/j.paid.2005.04.009>
- Alper, S., Us, E. O., & Tasman, D. R. (2019). The evil eye effect: Vertical pupils are perceived as more threatening. *Cognition and Emotion*, 33(6), 1249–1260. <https://doi.org/10.1080/02699931.2018.1550741>
- An, S., Kapoor, N., Setia, A., Agiwal, S., & Ray, I. (2019). The Indian Superstition Scale: Creating a measure to assess Indian superstitions. *Journal of Beliefs & Values*, 40(2), 205–214. <https://doi.org/10.1080/13617672.2019.1570452>
- Arslan, M. (2010). Paranormal İnanç Ölçeğinin Türkçe versiyonunun geliştirilmesi: Geçerlik ve güvenirlik çalışması [The development of Turkish version of the Paranormal Belief Scale: Its validity and reliability]. *İnönü Üniversitesi İlahiyat Fakültesi Dergisi*, 1(2), 23–40.
- Baumeister, R. F., Dale, K., & Sommer, K. L. (1998). Freudian defense mechanisms and empirical findings in modern social psychology: Reaction formation, projection, displacement, undoing, isolation, sublimation, and denial. *Journal of Personality*, 66(6), 1081–1124. <https://doi.org/10.1111/1467-6494.00043>
- Bayar, M. (2020). Şebinkarahisar ve çevresinde nazarla ilgili inanç ve uygulamalar [Beliefs and applications about evil eye in Şebinkarahisar and its environment]. *AKRA Kültür Sanat ve Edebiyat Dergisi*, 8(22), 107–131.
- Begić, H. N. (2020). Amulets from Anatolia: The material culture of the evil eye in Turkey. *Folk Life*, 58(2), 97–114. <https://doi.org/10.1080/04308778.2020.1804171>
- Ben-Ze’ev, A. (1992). Envy and inequality. *The Journal of Philosophy*, 89(11), 551–581. <https://doi.org/10.2307/2941056>
- Berger, A. S. (2012). The evil eye—An ancient superstition. *Journal of Religion and Health*, 51, 1098–1103. <https://doi.org/10.1007/s10943-011-9493-5>
- Berger, A. S. (2013). The evil eye: A cautious look. *Journal of Religion and Health*, 52(3), 785–788. <https://doi.org/10.1007/s10943-010-9450-8>
- Beytut, D., Muslu, G. K., Başbakkal, Z., & Yılmaz, H. B. (2009). Pediatri hemşirelerinin ağrıya ilişkin geleneksel inanç ve uygulamaları [Traditional beliefs and practices of pediatric nurses about pain]. *Maltepe Üniversitesi Hemşirelik Bilim ve Sanatı Dergisi*, 2(3), 12–18.
- Bohigian, G. H. (1997). The history of the evil eye and its influence on ophthalmology, medicine and social customs. *Documenta Ophthalmologica*, 94(1), 91–100. <https://doi.org/10.1007/BF02629683>
- Budak, A. (2020). 41 kere maşallah: Geleneksel konut mimarisinde nazarlık olarak maşallah kullanımı ve istif çeşitleri [41 times Mashallah: The use of “Mashallah” as an amulet in traditional domestic architecture and types of stacking]. *Milli Folklor*, 16(128), 179–205.

- Cañigüeral, R., & Hamilton, A. F. de C. (2019). The role of eye gaze during natural social interactions in typical and autistic people. *Frontiers in Psychology*, 10. Article 560. <https://doi.org/10.3389/fpsyg.2019.00560>
- Çıblak, N. (2004). Halk kültüründe nazar, nazarlık inancı ve bunlara bağlı uygulamalar [Nazar (evil eye), amulet and related practices in popular culture]. *Türklük Bilimi Araştırmaları*, 15, 103-125.
- Çınarar, H. (2022). *Kapadokya bölgesi'nde nazar inancı ve uygulamaları (Ürgüp)* [Eye belief and its applications in Cappadocia region (Ürgüp)]. Nevşehir Hacı Bektaş Veli Üniversitesi.
- Çırpan, Y., & Özdoğru, A. A. (2017). BeMaS Haset ve Gıpta Ölçeğinin Türkçe uyarlaması: Dilsel eşdeğerlik, güvenilirlik ve geçerlilik çalışması [Turkish adaptation of BeMaS Benign and Malicious Envy Scale: Transliteration equivalence, reliability and validity study]. *Anadolu Psikiyatri Dergisi*, 18(6), 577–585. <https://doi.org/10.5455/apd.256664>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. <https://doi.org/10.1037//0033-2909.112.1.155>
- Cragun, R. T., Hammer, J. H., & Nielsen, M. (2015). The Nonreligious–nonspiritual scale (NRNSS): Measuring everything from atheists to Zionists. *Secularism and Nonreligion*, 2(3), 36. <https://doi.org/10.17582/journal.src/2015/2.3.36.53>
- Dundes, A. (1992). *The evil eye: A casebook*. University of Wisconsin Press.
- Elliott, J. H. (2016). *Beware the evil eye: The evil eye in the Bible and the ancient world*. Cascade Books.
- Freud, S. (1919). The uncanny. In *The standard edition of the complete psychological works of Sigmund Freud, Volume XVII (1917-1919): An infantile neurosis and other works* (pp. 217–256). Hogarth Press.
- Gershman, B. (2015). The economic origins of the evil eye belief. *Journal of Economic Behavior & Organization*, 110, 119–144. <https://doi.org/10.1016/j.jebo.2014.12.002>
- Giacomantonio, M., Jordan, J., Federico, F., Assem, M. J. van den, & Dolder, D. van. (2018). The evil eye: Eye gaze and competitiveness in social decision making. *European Journal of Social Psychology*, 48(3), 388–396. <https://doi.org/10.1002/ejsp.2336>
- Hadjikhani, N., Hoge, R., Snyder, J., & Gelder, B. de. (2008). Pointing with the eyes: The role of gaze in communicating danger. *Brain and Cognition*, 68(1), 1-8. <https://doi.org/10.1016/j.bandc.2008.01.008>
- Hamid, S. (2013). Counselling Muslims: Handbook of mental health issues and interventions. *Journal of Beliefs and Values*, 34(1), 131-133. <https://doi.org/10.1080/13617672.2013.766014>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.
- Hessels, R. S. (2020). How does gaze to faces support face-to-face interaction? A review and perspective. *Psychonomic Bulletin & Review*, 27(5), 856-881. <https://doi.org/10.3758/s13423-020-01715-w>
- Holden, L. (2000). Evil eye. In *Encyclopedia of taboos* (pp. 66-67). ABC-CLIO.
- Hood, B. M., Willen, J. D., & Driver, J. (1998). Adult's eyes trigger shifts of visual attention in human infants. *Psychological Science*, 9(2), 131–134. <https://doi.org/10.1111/1467-9280.00024>
- Irwin, H. J. (1993). Belief in the paranormal: A review of empirical literature. *Journal of the American Society for Psychical Research*, 87(1), 1–39.
- Koç, B., & Temür, A. (2014). The superstitious mystery behind the eye: The symbol of eye and the way that the evil eye bead is reflected in Turkish society from the ancient history to the present. *Journal of History School*. 7(18). 11-50. <https://doi.org/10.14225/Joh496>

- Koç, E. M., Başer, D. A., Kahveci, R., & Özkara, A. (2016). Ruhun ve bedenın gıdası: Geçmişten günümüze müzik ve tıp [Nutrition of the soul and body: music and medicine from past to present]. *Konuralp Tıp Dergisi*, 8(1), 51-55. <https://doi.org/10.18521/ktđ.83286>
- Kuin, N. C., Masthoff, E. D. M., Munafö, M. R., & Penton-Voak, I. S. (2017). Perceiving the evil eye: Investigating hostile interpretation of ambiguous facial emotional expression in violent and non-violent offenders. *PLOS One*, 12(11), e0187080. <https://doi.org/10.1371/journal.pone.0187080>
- Lange, J., & Crusius, J. (2015). Dispositional envy revisited: Unraveling the motivational dynamics of benign and malicious envy. *Personality and Social Psychology Bulletin*, 41(2), 284–294. <https://doi.org/10.1177/0146167214564959>
- Maqsood, A., Jamil, F., & Khalid, R. (2018). Thinking styles and belief in superstitions: Moderating role of gender in young adults. *Pakistan Journal of Psychological Research*, 33(2), 335–348.
- Mowen, T. J., Heitkamp, A., & Boman, J. (2022). Paranormal activity: Self-control theory and belief in paranormal. *Deviant Behavior*, 43(6), 728–742. <https://doi.org/10.1080/01639625.2021.1915723>
- Ögenler, O., & Yapıcı, G. (2012). Bir grup üniversite öğrencisinin batıl inanışlar ve hastalıklara karşı tutum ve davranışlarının değerlendirilmesi [Evaluation of attitudes and behavior against superstitious beliefs and diseases in the group of university students]. *Cumhuriyet Medical Journal*, 34(1), 1-8. <https://doi.org/10.7197/1305-0028.930>
- Rassool, G. H. (2018). *Evil eye, jinn possession, and mental health issues: An Islamic perspective*. Routledge.
- Remsburg, T., Scheitle, C. P., & Corcoran, K. E. (2024). Witches, magic, and crystals: Assessing differences in paranormal beliefs and paranormal engagement across sexual identity groups using national survey data. *Sexuality & Culture*, 28(3), 1238–1254. <https://doi.org/10.1007/s12119-023-10177-w>
- Rice, T. W. (2003). Believe it or not: Religious and other paranormal beliefs in the United States. *Journal for the Scientific Study of Religion*, 42(1), 95–106. <https://doi.org/10.1111/1468-5906.00163>
- Riekkı, T., Lindeman, M., & Lipsanen, J. (2013). Conceptions about the mind-body problem and their relations to afterlife beliefs, paranormal beliefs, religiosity, and ontological confusions. *Advances in Cognitive Psychology*, 9(3), 112–120. <https://doi.org/10.2478/v10053-008-0138-5>
- Roohee, A., & Sunbal, M. (2023). Gender differences: Paranormal beliefs and maladaptive emotional schemas. *Journal of Arts & Social Sciences*, 10(1), 17-27. <https://doi.org/10.46662/jass.v10i1.307>
- Schofield, M. B., Baker, I. S., Staples, P., & Sheffield, D. (2016). Mental representations of the supernatural: A cluster analysis of religiosity, spirituality and paranormal belief. *Personality and Individual Differences*, 101, 419–424. <https://doi.org/10.1016/j.paid.2016.06.020>
- Sevinç, K., Güven, M., & Metinyurt, T. (2015). Dindar ve Spiritüel Olmama (DİSOL) Ölçeği'nin Türkçeye uyarlanması [Adaptation of Nonreligious-nonspiritual Scale to Turkish]. *Çanakkale Onsekiz Mart Üniversitesi İlahiyat Fakültesi Dergisi*, 6, 59-86.
- Şevli, D. (2023). Van'da nazar inancı ve bu inanca bağlı anlatılar. *Korkut Ata Türkiyat Araştırmaları Dergisi*, 13, Article 13. <https://doi.org/10.51531/korkutataturkiyat.1385068>
- Silva, T. (2023). Masculinity, femininity, and reported paranormal beliefs. *Journal for the Scientific Study of Religion*, 62(3), 709–722. <https://doi.org/10.1111/jssr.12862>

- Singh, P., & Dangwal, P. (2019). A study of paranormal belief, personality factors, religiosity and spirituality among young adults. *International Journal of Indian Psychology*, 7(4), Article 4. <https://doi.org/10.25215/0704.069>
- Spielman, P. M. (1971). Envy and jealousy: An attempt at clarification. *The Psychoanalytic Quarterly*, 40(1), 59–82. <https://doi.org/10.1080/21674086.1971.11926551>
- Tobacyk, J., & Milford, G. (1983). Belief in paranormal phenomena: Assessment instrument development and implications for personality functioning. *Journal of Personality and Social Psychology*, 44(5), 1029–1037. <https://doi.org/10.1037/0022-3514.44.5.1029>
- Türkarslan, K. K. & Kozak, E. D. (2024). Envious gazes and evil eye beads: A self-psychological perspective on the evil eye. *Psychoanalysis, Self and Context*, 19(2), 229–245. <https://doi.org/10.1080/24720038.2023.2299702>
- Türkmenoğlu-Berkan, S., & Tuncer-Manzakoğlu, B. (2016). Evil eye belief in Turkish Culture: Myth of evil eye bead. *The Turkish Online Journal of Design, Art and Communication*, 6(2), 193–204. <https://doi.org/10.7456/10602100/013>
- van de Ven, N., Zeelenberg, M., & Pieters, R. (2010). Warding off the evil eye: When the fear of being envied increases prosocial behavior. *Psychological Science*, 21(11), 1671–1677. <https://doi.org/10.1177/0956797610385352>
- Vargas, M. E. (2021). An attribution-emotion-action interpretation of the “evil eye” in everyday conflict situations. *Journal of Applied Social Psychology*, 51(4), 399–403. <https://doi.org/10.1111/jasp.12743>
- Ward, S. J., & King, L. A. (2020). Examining the roles of intuition and gender in magical beliefs. *Journal of Research in Personality*, 86, 103956. <https://doi.org/10.1016/j.jrp.2020.103956>