

DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PSI BELIEF AND EXPERIENCE SCALE (PBES) IN PAKISTANI SOCIO-CULTURAL CONTEXT

Sidra Mobeen

Department of Psychology, University of Gujrat, Gujrat.

Email: sdrmobeen@gmail.com

Sameera Shafiq

Ph.D. Assistant Professor, Department of Psychology, University of Gujrat, Gujrat.

Email: sameerashafiq@yahoo.com

Abstract

Psi phenomena refer to a range of beliefs and experiences that appear to involve knowledge, perception, or influence beyond existing known physical or sensory mechanisms. Experiences such as precognition, telepathy, psychokinesis, psychic healing and clairvoyance, have been documented across diverse cultures. Psi phenomena continue to attract scientific and psychological interest but no culturally appropriate and psychometrically validated indigenous instrument is available to assess psi beliefs and experiences among Pakistani adults. These experiences continue to be reported by many individuals and represent a significant area of investigation in mental and psychological research. However, the absence of culturally applicable assessment tools limits systematic research in non-western populations. Therefore, the present study aimed to develop and validate an indigenous measure of psi phenomena to examine its preliminary psychiatric properties. The Psi Belief and Experience Scale (PBES) were developed through focused group discussions and extensive literature review exploring indigenous conceptualization of psi phenomena. An initial pool of 41 items was generated and evaluated by subject matter experts. After expert review and pilot testing 37 items were retained, data were collected from 599 adults (262 males and 337 females) using purposive sampling. Exploratory factor analysis (EFA) yielded a three-factor structure reducing the scale to 32 items. Sampling adequacy was ($KMO = .904$), Bartlett's Test of Sphericity was significant, ($p < .001$), and three factor solution comprising 32 items, accounting 50.94% of the total variance and an excellent internal consistency (Cronbach's $\alpha = .904$). Three factors including: .psi beliefs and experiences, openness to psi phenomena, and media based psi exposure, reflecting both experiential and contemporary social cultural dimensions of psi. The finding suggested that the PBES is a reliable and culturally grounded instrument for assessing psi beliefs and experiences in Pakistani adults and might facilitate future research on parapsychology, spirituality, and consciousness.

Keywords: anomalous experiences, paranormal beliefs, psi phenomena.

INTRODUCTION

Psi pronounced as "sigh" is a collective term in parapsychology denoting anomalous phenomena of information or energy transfer, are currently unexplained by known research in psychology physics and biological mechanisms. These phenomena are broadly categorized into two subdomains: extra sensory perception (ESP) and psychokinesis (PK). (Dietz, 2015) Extra sensory perception or psi-gamma involves the acquisition of information without the use of any well-known sensory channels.

DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PSI BELIEF AND EXPERIENCE SCALE (PBES) IN PAKISTANI SOCIO-CULTURAL CONTEXT

(Cardeña, 2018) This includes, telepathy: attract mind-to-mind transfer of information/communication Clairvoyance: obtaining information about distant events and objects without sensory input precognition: knowledge of future upcoming events, psychokinesis (PK) or psi -kappa, involves the mind's ostensible direct influence on physical objects or energy without physical mediation. Psychic phenomena also include psychic healing, aura reading and initiative knowledge. (Irwin & Watt, 2007)

The radical foundation for this scale lies in understanding how individual integrate these anomalous phenomena into their worldview and personal narratives. Due to issues of reliability and lack of a robust theoretical framework within conventional science, research community largely remains skeptical about the existence of psi phenomena. However, the belief in psi and the reporting psi like experiences are well-documented psychological phenomena (Alcock, 1987). Belief in psi is often studied in relation to personality traits (openness to experience, absorption), cognitive styles, analytical versus initiative thinking, meaning making and critical thinking. (Irwin, 1999; Tobacyk, 1995) Understanding these beliefs is crucial for comprehending diverse human experiences, and their potential association with psychological well-being.

Contemporary research has increasingly shifted from debating the objective existence of psi phenomena to understanding the cognitive, psychological and cultural factors related with these experiences. Research suggests that belief in psi phenomena is widespread, although the cognitive features associated with such beliefs remain intricate. In a recent study comparing academic psi researchers, skeptics, and lay believers, Pehlivanova et al. (2024) found that researchers studying psi phenomena showed cognitive styles more closely aligned with skeptics than with lay believers overall. The research findings suggest that scientific interest in psi phenomena does not inevitably reflect stronger paranormal beliefs, but rather openness to pragmatic investigation. These outcomes further emphasize the importance of distinguishing between psi belief and the psychological characteristics associated with those beliefs.

Theoretical understanding of psi has also progressed beyond traditional experimental paradigms. Kennedy (2024) proposed the concept of the psi trickster, pointing that the inconsistency of experimental findings may reflect inherent characteristics of psi rather than methodological limitations alone. According to this prospective, spontaneous psi experiences often held profound personal meaning and resemble transformative or mystical experiences. Yet they resist reliable controlled scientific replication. He emphasized that further research should focus not only on experimental verification but also in-depth understanding of how paranormal beliefs and experiences influence human lives and psychological functioning.

Experimental research have also examined whether individual's beliefs predict psi performance. Using a Pseudo gambling paradigm, Strom (2022) investigated the relationship between paranormal beliefs, gambling attitudes and psi performance. Contrary to traditional expectations, belief in psi did not meaningfully predict task performance, research also found no meaningful differences between believers and skeptics. These findings suggest that although paranormal beliefs may influence individual's interpretation of experiences but they do not consistently interpret into significant experimental outcome. He further studied whether altered states of consciousness facilitate psi performance through an imagery cultivation technique, participants experienced mood changes and

some findings were consistent with previous psi conducive states. The overall effects were statistically limited and modest in nature. The research nevertheless highlighted the influence of psychological states particularly mood and relaxation on the expression of psi experiences. Recent radical developments have further extended the conceptualization of psi phenomena. Drawing upon Jung's theory of synchronicity, Strom (2023) suggested that psi phenomena may be better understood as meaningful coincidences rather than insulated paranormal events. This perspective highlights the psychological and symbolic significance of psi experiences and argues that archetypal processes may trigger their occurrences. Such interpretation move beyond traditional pragmatic models and encourage researchers to consider subjective significance alongside empirical investigation.

An evolutionary perspective has also developed in recent literature; Álvarez (2026) proposed that psi phenomena might represent our naturally occurring adaptive capacity rather than being a purely paranormal in nature. Integrating evidence from evolutionary biology, neuroscience, and comparative psychology, the researcher proposed that psi processes might have developed as mechanisms supporting survival and adaptation across the species. Although mainly theoretical, this perspective demonstrates the growing interdisciplinary interest in accepting psi phenomena within broader biological and psychological frameworks.

A growing body of research has also been directed towards the ethical and clinical implications of psi experiences within mental health and human service settings. Reports of precognition, telepathy and related experiences are frequently cited by concerns regarding social stigma and professional misunderstanding. This may discourage individuals from openly discussing such experiences with mental health professionals. Recent research work has emphasised that practitioners should adopt a flexible culturally responsive and ethically grounded yet scientifically balanced approach when addressing psi related reports. Practitioners need to distinguish between psi experiences rather than dismissing them solely because they fall outside conventional explanatory framework. These developments further highlight the need for psychometrically valid and sound instruments capable of assessing psi related beliefs and experiences in a culturally appropriate manner. This approach is much needed to support both empirical research and professional practice. (Isom & Isom, 2025)

The scientific investigation of psi beliefs and experiences depends upon the availability of valid and reliable assessment tools. Over the past several decades, several measures have been developed to assess anomalous experiences. The Revised Paranormal Belief Scale (RPBS) (Tobacyk, 2004), is one of the most widely used instruments to assess different dimensions of precognition, traditional & religious belief, spiritualism, witchcraft, and psi. While the RPBS has demonstrated significant psychometric properties, it reflects conceptualizations rooted in western cultural traditions. Similarly the Australian Sheep Goat Scale (Thalbourne, 2010), was developed to assess belief in and self-reported experiences related to psychokinesis, telepathy and precognitive. Although the ASGS focus is more directly on psi phenomena than broader paranormal beliefs, it was designed within a western social cultural context and provides comparatively inadequate coverage of culturally .expressions of psi phenomena.

The interpretation and expression of psi phenomena are strongly subjective to social, cultural, and religious contexts. Experiences interpreted as paranormal in one culture may be viewed as spiritual, intuitive and religious in another. Subsequently, instruments developed in western populations may

DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PSI BELIEF AND EXPERIENCE SCALE (PBES) IN PAKISTANI SOCIO-CULTURAL CONTEXT

not fully reflect indigenous conceptualization of psi phenomena in non-western societies. Pakistan possesses a diverse and rich cultural and religious tradition in which experiences such as intuitive knowing, spiritual healing, meaningful dreams and extraordinary perceptions are commonly discussed with cultural or religious lens. Nevertheless, no standardized indigenous instrument has been developed to comprehensively measure psi beliefs and experiences among Pakistani adults. The absence of such instrument limits culturally relevant psychological research and restricts comparisons across populations.

Significance of the Study

Although several instruments have been developed to assess paranormal beliefs and anomalous phenomena, including the Australian sheep goat scale (Thalbourne, 2010), Revised Paranormal Belief Scale (Tobacyk, 2004), and Anonymous Experiences Inventory (Gallagher et al., 1994). These instruments were primarily developed in western context. Consequently, they may not fully capture culturally embedded understanding of psi, particularly in societies where religious beliefs, spiritual traditions and contemporary media collectively influence how such experiences are perceived and interpreted by individuals.

Furthermore, the social context surrounding psi has evolved considerably over the past two decades because of availability of digital media has transformed how individuals learned about, interpret and discuss anomalous experiences. Contemporary exposure to psi related information increasingly occurs through social media platforms, digital content creators and Podcasts. However, existing psychometric instruments rarely incorporate media based exposure as a distinct psychological dimension, despite its radical influence on the formation and reinforcement of beliefs regarding psi. Unlike previous instruments, Psi Belief and Experience Scale (PBES) integrate beliefs and subjective experiences, cognitive openness and awareness, and media based exposure, by providing a holistic and contemporary grounded assessment of psi phenomena. This research is a first to incorporate the digital context in assessment of psi phenomena as an important aspect in contemporary belief and experiences.

Research Objectives

The purpose of this research was to develop culturally contextualized reliable measure of psi phenomena. Specifically the study sought to:

- Generate culturally relevant items through literature review and focus group discussions;
- Examine the factorial structure of the scale using exploratory factor analysis;
- Develop a multidimensional instrument for assessing psi beliefs and experiences, openness to psi phenomena, and media based psi exposure.

METHODOLOGY

The research design was based on a mixed method approach specifically intended to generating items pool for the scale to measure psi belief and experience.

Sample

In the present study, participants were selected from the general adult population; sample was collected, using convenience purposive sampling technique, due to time constraints, feasibility and accessibility limitation, of a randomized sample. Responses were collected through in-person administration. The sample consisted of 599 participants recruited from the four main cities of Pakistan

including Rawalpindi, Islamabad, Gujranwala and Gujrat. Participants aged 18 years and above were eligible for inclusion. Individuals who provide informed consent and agreed to voluntary participation in study were included. Individuals with any previously diagnosed psychiatric condition, or those who were unwilling to participate in the research, were excluded.

Procedure

The development of this Psi Belief and Experience Scale (PBES) observed established psychometric principles to ensure its reliability and utility as a research instrument. The construction phase followed a systematic methodological approach consistent with guidelines for scale development including item generation, format selection, pilot testing and psychometric analysis (DeVellis, 2017).

Item Generation

As suggested by Clark and Watson (1995), careful conceptualization of construct preceded item writing. An extensive item pool generated through a comprehensive literature review of theoretical text on parapsychology, cognitive psychology and existing paranormal scales and focus group discussions.

Following recommended psychometric scale development protocols, item generation was done through mixed methods, expert review, and attention to content and cultural variety. (DeVellis, 2017) An extensive literature review was conducted to identify commonly studied psi phenomena research. Previous scales and constructs such as Australian Sheep Goat Scale (Thalbourne, 1995), the Anomalous Experience Inventory (Gallagher & Kumar, 1994), and the Phenomenology of Consciousness Inventory (Pekala, 1991) were examined. These measures informed the conceptual structure and item phrasing of the new items constructions. Using established scales as a reference point is strongly suggested by scale development authorities like Clark and Watson (1995), and DeVellis (2017).

Focus Group Discussions

To develop the initial item pool a series of semi structured focus group discussions was conducted. The aim of these discussions was to explore participants' beliefs, interpretations, and personal experiences regarding psi. The qualitative phase provided rich contextual information to develop culturally appropriate scale items.

Development of the Interview Guide and Conduct of Focus Group Discussions

A semi structured interview guide was developed following an extensive review of the psi phenomena literature. The interview protocol was further refined through subject matter experts' consultations to ensure that it sufficiently addressed the objectives of the research. Questions were designed to encourage participants to describe their subjective accounts of psi perception and experiences related to precognition, telepathy, meaningful coincidences, psychokinesis and clairvoyance. The questions followed a natural flow from general discussions of psi experiences to more enquiries concerning multiple dimensions of psi phenomena.

Conduct of Focus Group Discussions

Three focus group discussions were conducted with 15 adult participants. Each discussion lasted approximately 45-60 minutes; the principal researcher facilitated the discussion in a confidential setting and supportive way. Participants were actively encouraged to share their personal beliefs and experiences freely without any hesitation.

Detailed written field notes were maintained throughout the focus group discussions and the data

DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PSI BELIEF AND EXPERIENCE SCALE (PBES) IN PAKISTANI SOCIO-CULTURAL CONTEXT

obtained was used for generating the initial item pool.

Generation and Categorization of Item Pool

Analysis of the existing literature review and focus group discussions resulted in three main categories emerged from the data. A panel of five subject matter experts, including psychologists, linguistic experts and researchers rigorously reviewed the initial categories. Including general and .Psi beliefs and experiences, Openness to psi phenomena and contemporary influence of social and digital Media based psi exposure. Based on these dimensions an initial pool of 41 items was generating representing different aspects of psi phenomena.

Expert Review and Content Validation

A panel of three subject matter experts reviews the item pool. This review focused on ensuring content validity, cultural appropriateness and content clarity to avoid ambiguity or redundancy. Feedback from this critical evaluation leads to item refinement, rephrasing or elimination. In accordance with Haynes et al. (1995), experts reviewed all items based on the theoretical alignment, cultural appropriateness, and clarity and language simplicity. Revisions were made where necessary with unclear and ambiguous items removed or reworded. Several new items were also suggested by experts to expense subscale coverage. Consistent with DeVellis (2017) guidelines, care was taken to include both positively framed and behaviorally observable items. Cultural and linguistic considerations in scale development require attention to content, semantic, and technical equivalence. (Flaherty et al. 1988)

Scoring of Items

Five point Likert response format was decided for this scale, Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5). This response format was adopted to allow nuanced responses across the psi scale. (DeVellis, 2017) all items were positively worded; therefore no reverse scoring was needed. Total scores are obtained by summing participant's responses across all scale items, with possible score range from 32-160.

Pilot Linguistic Testing of Scale Items

The final draft goes through pilot linguistic testing with 20 psychology students to check for comprehension and clarity. (Polit & Beck, 2006) Participants were asked to openly comment on the readability, clarity, comprehensibility and relevance of the scale items. Feedback indicated that statements were easy to understand and no further linguistic refinement were needed. After review, refinement and validation, the final version of the scale undergoes pilot testing and psychometric validation including exploratory factor analysis.

Pilot Testing

The revised set of items was pilot tested to a sample drawn from the target population. The sample consisted of 30 young adults. This phase allowed for an initial assessment of response distributions, item clarity and preliminary indication of internal consistency. No significant revision was needed.

Exploratory Factor Analysis

Following pilot testing, and data collection, EFA was performed to identify the underlying factor structure of the scale. Data for EFA was collected from 599 adult participants. There were 262 males (43.7%) and 337 females (56.3%). The participants ranged in age from 19 to 60 years ($M = 31.20$ years

SD=8.398). Most participants had completed or studying a bachelor's degree $n= 353$, (58.9%), followed by postgraduate qualification $n= 213$, (35.6%), whereas only $n= 30$, (5.0%) had an intermediate education and three participants (0.5%) had metric level education. Data was collected from Rawalpindi, Islamabad, Gujranwala and Gujrat district, of the 599 participants 69.6% resided in urban areas, whereas 30.4% were from rural areas. Research Participants completed the questionnaire voluntarily after providing informed consent.

RESULTS

Prior to extraction, the Kaiser-Meyer-Olkin measure of sampling adequacy (.904) was assessed and found to be acceptable and the data was suitable for factor analysis at this stage. Bartlett's Test of Sphericity was significant, $\chi^2 (496) = 13,512.74$, $P < .001$, (df, 496) confirming the correlation matrix was not an identity matrix and there was significant relationships among items observed. Principal Axis Factoring (PAF) with Varimax rotation and kaiser normalization was employed for extraction, the number of factors was fixed at three, because the scale development was theory driven and informed by findings from the qualitative phase including focus group discussions, expert evaluation and conceptual organization of the generated item pool, rather relying solely on statistical criteria for psychometric analysis (Devillis, 2017; Worthington & Whittaker, 2006). Items with factor loading of .40 or higher were retained, resulting in a three factor stable solution. The extracted factors had Eigenvalues of 7.79, 4.80, and 3.71, respectively, adding together total explained variance of 50.94%. Factor 1 had an Eigenvalue of 7.79 = 19.38% of the total corresponding variance. Factor 2 had an Eigenvalue of 4.80 and 17.69% of the total corresponding variance. Factor3 had an Eigenvalue of 3.71 = 13.87% of the total corresponding variance. The final scale has an excellent internal consistency (Cronbach's $\alpha=.904$).

Table 1 Factor loadings of Psi Belief and Experience Scale (PBES) items after Varimax Rotation ($n= 599$)

Sr. No.	Items	1	2	3
1	psi11	.798		
2	psi9	.772		
3	psi8	.765		
4	psi10	.754		
5	psi34	.752		
6	psi1	.749		
7	psi35	.741		
8	psi3	.713		
9	psi7	.688		
10	psi2	.627		
11	psi4	.563		
12	psi5	.539		
13	psi25		.818	
14	psi26		.795	
15	psi24		.785	
16	psi28		.759	

DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PSI BELIEF AND EXPERIENCE SCALE (PBES) IN PAKISTANI SOCIO-CULTURAL CONTEXT

17	psi30	.723	
18	psi23	.704	
19	psi21	.679	
20	psi31	.673	
21	psi20	.592	
22	psi27	.560	
23	psi22	.514	
24	psi29	.416	
25	psi14		.837
26	psi12		.783
27	psi13		.757
28	psi18		.753
29	psi16		.732
30	psi15		.674
31	psi17		.671
32	psi19		.643

Note: (values < .4 are suppressed)

Table 2

Factor composition of Psi phenomena Beliefs and Experience Scale

Factor Name	Item No	Number of items	Cronbach's alpha
Psi Belief & Experiences	11,9,8,10,34,1,35,3,7,2,4,5	12	.925
Openness to Psi Phenomena	25,26,24,28,30,23,21,31,20,27,22,29	12	.906
Media based Psi Exposure	14,12,13,18,16,15,17,19	8	.907

Note: (number of items corresponds to the final retained items following EFA.)

Table 3

Means, Standard Deviations, and Pearson Correlations among the Dimensions of the Psi Phenomena Scale (n = 599)

Variables	M	SD	2	3
1. Psi Beliefs & Experiences	46.41	11.85	.18***	.20***
2. Openness to Psi Phenomena	46.53	10.68	—	.20***
3. Media Based Psi Exposure	30.28	8.25	—	—

Note. M = Mean; SD = Standard Deviation. Pearson product-moment correlation coefficients are reported. *** $p < .001$.

Descriptive statistics indicated that participants obtained the highest mean score on openness to

Psi ($M = 46.53$, $SD = 10.68$), followed by psi phenomena beliefs and experiences ($M = 46.41$, $SD = 11.85$), and media based psi exposure ($M = 30.28$, $SD = 8.25$). Pearson correlation analysis revealed small but significant positive associations among all three dimensions of the scale ($r = .18-.20$, $p < .001$), suggesting that although the dimensions are related, they represent distinct aspects of psi belief and experiences related to psi phenomena.

DISCUSSION

The present study aimed to develop and provide preliminary psychometric evidence for the psi phenomena scale culturally relevant instrument designed to assess psi phenomena, belief and experiences among Pakistani adults. The Psi Belief and Experience Scale (PBES) developed through a comprehensive literature review, James Carpenter's First Sight Theory presents that extra sensory perception (ESP), is not a special or rare occurrence but a continuous unconscious process that operates as part of daily cognitive and emotional functioning. According to this theory, individuals are constantly receiving and responding to information below the threshold of conscious awareness. This information in turns influences judgments, emotions, preferences and interpersonal behaviors. (Carpenter et al., 2014) This theory aligns with the concept of unconscious psi processing suggesting that people may unknowingly act on psi related cues such as intuitive insights, pre-cognitive impressions and symbolic dreams. This framework provides a basis for understanding how these phenomena can be impeded within regular psychological processes, especially in emotionally or symbolically charged contexts. Focus group discussions, expert evaluation and psychometric analysis were also utilized. The finding supports the Psi Belief and Experience Scale (PBES) as a reliable and conceptually sound instrument for measuring psi beliefs within the Pakistani cultural context. The Psi Belief and Experience Scale (PBES) address a gap in literature by developing culturally contextualized and comprehensive scale. The sample size of 599 adults provides diversity in terms of age, and gender to enhance the generalization of research. The combination of statistical significance and rigor, the psi scale establishes as a reliable tool for future research and assessment purposes.

The Psi Belief and Experience Scale (PBES) demonstrated excellent internal consistency (.904) indicating that the items consistently assess the underlying construct. Similar levels of internal consistency have been reported for established assessment tools of paranormal beliefs, including, Australian Sheep Goat Scale and Revised Paranormal Belief Scale suggesting that the present scale contains satisfactory psychometric reliability. (Lange et al., 2000; Thalbourne & Delin, 1993)

The emergence of three conceptually distinct subscales provides essential theoretical support for understanding psi phenomena as a multidimensional construct. Rather than representing isolated paranormal beliefs, the finding suggests that psi related cognition develops through the intersection of personal experiences, cognitive attitudes, and social cultural influences. The first factor, psi beliefs and experiences, represents the core dimension of the Psi Belief, Experience Scale (PBES) compasses beliefs, and subjective experiences related to psi phenomena such as clairvoyance, telepathy, and psychokinesis, similar domains have been identified within established instruments of paranormal such as Revised Paranormal Belief Scale. (Lange et al., 2000) The emergence of this factor reinforces the view that personal beliefs and experiences constitute the central psychological component of psi.

The second subscale, openness to psi, extent beyond mere beliefs by reflecting an individual's active willingness to consider, explore and evaluate anomalous experiences. This factor represents a

DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PSI BELIEF AND EXPERIENCE SCALE (PBES) IN PAKISTANI SOCIO-CULTURAL CONTEXT

cognitive orientation stems from curiosity, awareness, and receptiveness, rather than unquestioning acceptance. Existing literature has suggested that openness to unusual experiences influences individuals' perception and interpretation to anomalous events. (Cardena, 2018) the identification of this dimension indicates an important component of psi related cognition independent of personal experience.

The third subscale, media based psi exposure, represents one of the most distinctive contributions of the present research. Unlike earlier measures develop before the rapid expansion of digital and social media; this subscale recognizes the growing influence of social and digital media in shaping public understanding of psi phenomena. This dimension is in line with Sparks and Miller (2001) they examined how media exposure including films, and television programs, shapes beliefs about paranormal phenomena. These finding also explored and shed light on influence of media usage and formulation of paranormal beliefs. As indicated by participants of focus group discussions how contemporary individuals increasingly encounter paranormal content through digital environments, which may influence their awareness, curiosity, belief systems and interpretation of psi. Based on the media gratification /cultivation theory (Mosharafa, 2015) the emergence of this distinctive factor suggests that media exposure has become an imported source of knowledge acquisition through social cultural pathway. Incorporating this dimension extends existing conceptualizations of psi by acknowledging the role of the modern information technology in belief formation.

Taken together these findings support the conceptualization of psi as a multidimensional construct, distinguishes Psi Belief and Experience Scale (PBES) from existing measures. It also assesses contemporary digital influences of psi beliefs and experiences, thereby enhancing its contextual relevance for modern populations.

Conclusion

The present study developed the indigenous psi scale and provided preliminary evidence for its psychometric soundness in Pakistani adults. By following these rigorous psychometric procedures, this scale aims to offer a reliable and valid instrument for investigating psi. This scale empirically examines individual differences in the beliefs and interpretation of psi phenomenon. This scale overall contributes valuable data to the psychological study of human belief system and attitude regarding extraordinary experiences. The scale represents a significant advancement in assessing psi phenomena with a strong psychiatric properties, it serves as a valuable tool for researchers and mental health professionals aiming to understand psi phenomenal and its related experiences. The study identified a three-factor structure comprising 32 items with excellent internal consistency; the findings suggest that the scale is a reliable and culturally relevant assessment tool for psi beliefs and experiences. The scale addresses the lack of an indigenous measuring tool in this area and offers a valuable addition for future psychological research and assessment.

Limitations and Suggestions

The present study has several limitations that should be considered when interpreting the outcomes; first, the study used purposive sampling method, which may limit the generalization of the findings to a wider population context. Second, participants were recruited from a limited geographical area and therefore the scale should be evaluated in more diverse region and cultural samples. Third, although

exploratory factor analysis provided preliminary evidence of the indigenous scale, the factorial structure requires further confirmation through CFA, using an independent sample to ensure reliability. Finally, the study depends exclusively on self-report data, which may be predisposed by response biases such as social desirability and compliance behavior.

Based on the findings of the present study, several recommendations are suggested. Future studies should utilize probability-sampling techniques and recruit participants from a more diverse background to improve generalizability. Researchers are also encouraged to investigate discriminant, convergent, criterion related and test re-test validity to establish additional evidence for the psychometric soundness of the scale. Further studies employing CFA and additional forms of psychometric validity are recommended to strengthen the evidence for the scale.

Implications

The indigenous scale may be utilized in research, clinical and educational settings to examine the relationship of psi beliefs with psychological variables such as personality traits, absorption, religiosity, and spirituality.



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

References

1. Alcock, J. E. (1987). Parapsychology: Science of the anomalous or search for the soul? *Behavioral and Brain Sciences*, 10(4), 553–565.
2. Álvarez, A. A. (2026). Towards a natural history of psi: An evolutionary proposal based on consilience of inductions. *Journal of Scientific Exploration*, 40(1), 124–147.
3. Cardena, E. (2018). The experimental evidence for parapsychological phenomena: A review. *American Psychologist*, 73(5), 663–677. <https://doi.org/10.1037/amp0000236>
4. Carpenter, J. C. (2012). *First sight: ESP and parapsychology in everyday life*. Rowman & Littlefield.
5. Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309–319.
6. DeVellis, R. F. (2017). *Scale development: Theory and applications* (4th ed.). Sage.
7. Dietz, J. L. G. (2015). *The PSI theory—Understanding human collaboration* (Technical Report TRFIT-15-05). Faculty of Information Technology, Czech Technical University in Prague.
8. Flaherty, J. A., Gaviria, F. M., Pathak, D., Mitchell, T., Wintrob, R., Richman, J. A., & Birz, S. (1988). Developing instruments for cross-cultural psychiatric research. *Journal of Nervous and Mental Disease*, 176(5), 257–263.
9. Gallagher, C., & Kumar, V. K. (1994). Anomalous Experiences Inventory: Reliability and validity. *Journal of Parapsychology*, 58(4), 402–428.
10. Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment*, 7(3), 238–247.
11. Irwin, H. J. (2000). Belief in the paranormal and a sense of control over life. *European Journal of Parapsychology*, 15, 68–78.
12. Irwin, H. J., & Watt, C. A. (2007). *An introduction to parapsychology* (5th ed.). McFarland.
13. Isom, C., & Isom, D. N. (2025). Toward ethical psi-informed practice in human service. *Mind and Reason Advocacy Group*.
14. Kennedy, J. E. (2024). Coming to terms with the psi-trickster. *Journal of Scientific Exploration*, 38(1).
15. Kennedy, J. E. (2025). A new approach to psi: Re-envisioning paranormal experience as meaningful coincidence. *Journal of the Society for Psychical Research*, 89(3), 156–162.
16. Lange, R., Irwin, H. J., & Houran, J. (2000). Top-down purification of Tobacyk's Revised Paranormal Belief Scale. *Personality and Individual Differences*, 29(1), 131–156. [https://doi.org/10.1016/S0191-8869\(99\)00183-3](https://doi.org/10.1016/S0191-8869(99)00183-3)
17. Mosharafa, E. (2015). All you need to know about: The cultivation theory. *Global Journal of Human-Social Science: A Arts & Humanities–Psychology*, 15(8), 23–37.
18. Pehlivanova, M., Weiler, M., & Greyson, B. (2024). Cognitive styles and psi: Psi researchers are more similar to skeptics than to lay believers. *Frontiers in Psychology*, 15, 1398121. <https://doi.org/10.3389/fpsyg.2024.1398121>
19. Pekala, R. J. (1991). *Quantifying consciousness: An empirical approach*. Plenum Press.
20. Polit, D. F., & Beck, C. T. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health*, 29(5), 489–497. <https://doi.org/10.1002/nur.20147>

DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PSI BELIEF AND EXPERIENCE SCALE (PBES) IN PAKISTANI SOCIO-CULTURAL CONTEXT

21. Sparks, G. G., & Miller, K. (2001). Investigating the relationship between exposure to media paranormal depictions and beliefs in the paranormal. *Communication Monographs*, 68(1), 98–113.
22. Storm, L. (2022). The effects of imagery cultivation on mood and psi performance. *Journal of the Society for Psychical Research*, 86(2).
23. Storm, L. (2023). Attitudes and beliefs as predictors of psi effects in a pseudo-gambling task. *Journal of Parapsychology*, 87(1), 66–86.
24. Thalbourne, M. A. (2010). The Australian Sheep-Goat Scale: Development and empirical findings. *Australian Journal of Parapsychology*, 10(1), 5–39.
25. Thalbourne, M. A., & Delin, P. S. (1993). A new instrument for measuring the sheep-goat variable: Its psychometric properties and factor structure. *Journal of the Society for Psychical Research*, 59(830), 172–186.
26. Tobacyk, J. J. (1995). What is the correct dimensionality of paranormal beliefs? A reply to Lawrence's critique of the Paranormal Belief Scale. *Journal of Parapsychology*, 59(1), 27–34.
27. Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist*, 34(6), 806–838. <https://doi.org/10.1177/0011000006288127>.