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**Indigenizing the Postnatal Blues in Pakistani Context: A Psychometric Study**

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### **Abstract**

Postnatal Blues is postnatal psychological distress among new mothers. It is marked by partially exasperating physical and affective symptoms having significant etiological relevance for a more debilitating condition named Postnatal Depression. The absence of an assessment protocol for PNBs in Pakistan became the basis for conceptualizing the current research. It attempts to develop a measure for screening mothers for PNBs based on the indigenous expression and manifestation of PNBs in the Pakistani context. Semi-structured interviews elicited a list of 27 items from ten mothers experiencing PNBs and 25 relevant experts. The final list of 21 items, empirically validated by six pertinent experts and piloted on 15 mothers, was further administered to a purposive sample of Pakistani mothers diagnosed with PNBs (N= 88). The known-group validity and cut-off score of the Postnatal Blues Screening Scale (PNBSS) were established through Cohen's  $d$  and Receiver Operating Curve (N= 107), respectively. PNBSS resulted in four factors, namely rudimentary blues, over sensitivity, emotional dysregulation, and somatic and cognitive disquietude with significant known-group validity (effect size = 0.9 -1.1); ROC curve (AUC= 0.853). The participants could not be isolated from their families for stage III assessment, which increases the likelihood of response bias. PNBSS has promising psychometric robustness for both clinical and research purposes. Being the first indigenous scale, PNBSS can serve as a foundation for the psychological assessment regime for Pakistani postnatal mothers and the benchmark for future research.

**Key Words:** Postnatal Blues, Symptomatology, Pakistani Mothers, Puerperium, Indigenous Screening, Scale Development.

**Indigenizing the Postnatal Blues in Pakistani Context: A Psychometric Study**

Besides significant physical experience, childbirth significantly transforms the childbearing woman's emotional, social, and spiritual wellbeing (Brockington, 1996; Buultjens & Liamputtong, 2007). Excessive weight, genital/pelvic, and other innumerable changes are being experienced by a postnatal mother while her return to the non-pregnant physical state. She is three times more vulnerable to developing psychiatric disorders during this period (Cox et al., 1993). Around 50- 80% of the women experience Postnatal Blues (Meriwether & England, 2018), a transient mood disturbance where a mother experiences countless emotions from ecstasy to dejection, coordination to bewilderment, laughter to uncontrolled weeping spells, self-assurance to nervousness (Beck, & Driscoll, 2006) and finds these myriad emotions completely perplexing. Other symptoms of physical pain, fatigue, irritability, sleep problems, reduced appetite, and perturbation peak at the fifth day and abate by two weeks with support and education (Beck & Driscoll, 2006; Kennerley & Gath, 1989).

The composition of biological (Bloch, et al., 2000), psychological and social factors (Beck, 2008; Dennis & Letourneau, 2007; Husain et al., 2006; Pillsbury, 1978; Tannous et al., 2008) in a peculiar manner during postnatal phase attribute in the multifaceted etiology of PNBs. These factors include exhaustion, hormonal imbalance, cultural factors, economic circumstances, relationship issues (Esquivel et al., 2006), antepartum depressive symptoms, childcare stress, adjustment to parenthood, psychosocial mutilation, history of premenstrual mood lability, oral contraceptive use, depressive syndromes predating pregnancy, family history of depression (Bloch et al., 2006; Merchant et al., 1995), lack of social support (Takahashi & Tamakoshi, 2014), the undesired gender of the newborn, specifically the birth of a baby girl (Gul et al.,

2013), temperament of the infant (Tronick & Reck, 2009), and living in the nuclear family system (Ahmad & Munaf, 2006).

Pakistani mothers are the ablest hosts of developing PNBs, owing to their greater likelihood of experiencing any of the abovementioned problems. Afzal and Khalid (2017) explored the significant psychosocial predictors of PNBs in Pakistani mothers and reported that 12% of their research sample with a high inclination toward PNBs. The mothers with PNBs had low prenatal mood, lack of emotional, instrumental, and informational support, more children, less education, the birth of a baby girl, abuse, unplanned pregnancy, experiences of poor obstetric conditions, and post-delivery confusion in their profiles.

However, there are several reasons for concern to attend to this otherwise enduring condition that can reappear being masked in some other psychological disorder. As informed by established studies, a few of the several reasons for concern are their worldwide prevalence across various cultures. For instance, Korea reports 61% of PNB incidence (Jung & Kim, 2005), whereas the United States of America informs their occurrence to be 65% (Beck et al., 1992). In Hong Kong, the prevalence is 44% (Hau & Levy, 2003), while 49 % is stated in France (Fossey et al., 1997). In addition, 66% of postnatal mothers experience PNBs in Japan (Nagata et al., 2000), 50-60% in India (Venkatesh et al., 2011), and 50 -54% (Habib & Khalid, 1997; Rasheed & Khalid, 1988) in Pakistan. With Pakistani society's social, cultural, political, and psychological evolution over decades, it is pertinent to reevaluate the prevalence rates of PNBs in view of the cultural context.

In second place, PNBs are clinically relevant in terms of their negative implications on mothers, children, and families. The severe consequences include but are not limited to mother-child bonding issues (Nagata et al., 2000), insecure attachment in the child (Mayberry &

Affonso, 1993; Murray, 1992), mothers' atypical physical touch for newborn (Ferber, 2004), failure in the maternal role attainment (Panzarine et al., 1995), breastfeeding problems and abrupt weaning (Li et al., 2008), poor physical and psychosocial wellbeing, academic failure, and behavioral problems in the children (Nadeem et al., 2018; Rahman et al., 2004; Zahidie & Jamili, 2013). These long-term ripples call for a thorough understanding of the phenomenon in the first place and managing the issue from the basics instead of addressing them on a surface level through quick-fix approaches. To picture the primordial portrait of PNBs that is aboriginal to Pakistani women can be beneficial for clinicians and researchers.

Thirdly, PNBs have etiological relevance in terms of developing Postnatal Depression (PND), a perilous and debilitating psychological illness with profound consequences. A strong association between both conditions is widely documented in literature (Sylvén et al., 2017). Mothers with PNBs have multiple times high inclination toward successive PND (Miller et al., 2017), and at least 20% of them aptly develop PND (Patel et al., 2002). Therefore, designing an assessment protocol for PNBs can be a significant contribution to preventing mothers from experiencing chronic illness.

World Health Organization (2014) emphasizes a thorough postnatal psychological assessment of women, focusing on their emotional wellbeing and postnatal adjustment. Health practitioners are endorsed to screen and resolve PNBs between the tenth to fourteenth day postnatal; and multiple assessments for the mothers with persistent symptoms in the following months. This can help to prevent the chances of PND and the implementation of prompt interventions.

Considering that suffering mothers can never be productive in bringing the best out of their children while struggling with their psychological problems, timely assessment and management of their postnatal psychological wellbeing are imperative.

In Pakistan, postnatal mothers are never screened for PNBs in the maternity units; PND is also attended only when mothers reach the emergency units of hospitals. Despite multiple contacts with medical professionals during the postnatal period: the symptoms of consecutive fatigue, disturbed sleep, apprehensions, irritability, mood lability, etc., are dismissed as normal postnatal conditions or malingering. The lack of awareness combined with the lack of health care systems brings havoc in women's lives, making them suffer silently. There is much stigma attached to mental health issues in Pakistan, which worsens when it comes to childbearing women. Other than the absence of awareness, the personal and social fear of being stigmatized as a 'mentally disturbed mother' never lets even emancipated women seek psychological help. Furthermore, in the absence of a budget for mental health in Pakistan, issues like psychological wellbeing and deciduous with long-term inveterate consequences have always been inessential.

Considering that PNBs have a long way to go for their notification, proper assessment, and management, it was found pertinent to devise and propose a screening protocol for hospital settings in Pakistan. It was thought the only practical way to facilitate the clinicians of Pakistan to develop a culture of postnatal psychological assessment of women in the maternity units. In addition, the phenomenology of PNBs was required to be thoroughly explored and understood.

The concerns of not using established questionnaires like the 'Edinburgh postnatal depression scale' or 'The blues questionnaire' for assessment purposes are pretty relevant here. These scales and many others developed in the individualistic cultures of the USA and Britain could not serve the apposite of the valid assessment of individuals belonging to the collectivistic

culture of Pakistan. Moreover, these assessment measures had always been alien regarding the language, norms, and expressions of the illnesses resulting in concomitant misdiagnosis.

The appurtenant issue of language and expression of illness is quite crucial. Often an English word cannot find appropriate expression in Urdu and vice versa because the subjective experience of a psychological condition requires cultural and linguistic processing for its expression. This cultural and linguistic expression comes from the society where individuals learn to process and categorize information. Therefore, society's culture also shapes the expressions and interpretations of psychological conditions. Considering the views of the linguist Resnik (2018), “language is the most important key to access others’ feelings” (p 33, as cited in Pannicaci, 2019), we can no more undermine the importance of language in the expression and definition of a particular disorder, which we had been doing since ages in Pakistan. This also nullifies the quick-fix approach of adaptations and translations of western measures, which brings the high probability of false positives and false negatives in assessment owing to language and expression differences.

Owing to the worldwide research findings in a couple of decades, American Psychiatric Association has emphasized the valid, reliable, and culturally appropriate assessment in DSM 5. According to APA (2013)

“Mental disorders (psychological conditions) are defined in relation to cultural, social, and familial norms and values. Culture provides interpretive frameworks that shape the experience and expression of the symptoms, signs, and behaviors that are criteria for diagnosis.” (DSM, 2013, p 14)

As per the directives mentioned above, assessing individuals through the tools designed and validated by other cultures is no more than an injudicious idea.



For ages PNBs had been regarded as a western phenomenon, accruing to women belonging to or living in western cultures by anthropologists. The differences in the lifestyles, values, family structures, and stature of the men and women in both societies were said to contribute to the presence or absence of this condition (Stern & Kruckma, 1983). Nevertheless, on the other side, the notion of ‘PNBs as a universal phenomenon’ (Shimizu & Kaplan, 1987) also began to rise, which highlighted the clinical incapacity of the relevant stakeholders for their failure to identify the presence of PNBs in nonwestern societies and also served as the benchmark for the exploration and understanding the puerperal conditions in their indigenous context.

The research interests in PNBs were initiated only three decades ago in Pakistan. The first published research on PNBs in Pakistan dates to 1989 by Khalid, that identified 68.31 percent of the puerperal sample having PNBs with a significant risk of developing PND. The year 1991 brought an eloquent critique of impressions like better family support as the protective factor against puerperal conditions. In this critique, Farooq (1991) urged clinical and psychiatric attention toward the ignorance of puerperal issues in Pakistan. By 2003 the research trend was directed toward Postnatal Depression (PND) and its associated demographic factors. PNBs could not retain a position to be investigated for their nature and expression. It could be registered seldom as the associated factor of more serious puerperal psychological conditions. The number of research in the last two decades is a great value addition to the scientific databases.

Unfortunately, exploring the autochthonous expression of PNBs to prevent major puerperal disorders in their inceptions could never appear in the literature. Although the trend of indigenizing psychological assessment tools is no longer new in Pakistan, the aboriginal construct of PNBs is yet to be explored and understood. Owing to the dearth of research and the

significance of the problem, developing, and validating the Postnatal Blues Screening scale (PNBSS) in Urdu is more than a desideratum in current times.

## **Methodology**

### **Ethical Considerations**

In terms of ethical considerations, it was found pertinent that this research would contribute to 'scientific' knowledge and improve the psychological health of the mothers being investigated. The research project was rigorously evaluated, improvised, and approved regarding its beneficence, non-maleficence, informed decision-making, confidentiality, and debriefing by the board of studies and advance board of studies at Beaconhouse National University, Lahore. The project was appraised in APA research guidelines and granted permission to be carried out.

### **Procedure.**

The Postnatal Blues Screening Scale (PNBSS) is developed in three stages. In Stage I, the symptoms of PNBs were collated from different sources to generate the item pool. Empirical validation from the relevant field experts on the list of items was derived in Stage II. Stage III focuses on establishing the scale's reliability, and Stage IV talks about the sensitivity, specificity, cutoff scores, and known group validity of PNBSS.

#### ***Stage I: Generating symptomatology.***

**Sample group 1.** The phenomenology was generated from the mothers, referred by their gynecologists with PNBs using an empirical approach. Their presenting complaints were collected from their respective clinicians first, followed by a series of semi-structured interviews with them. Ten postnatal mothers with vaginal deliveries, aged between 18- 36 years, having no physical and psychological ailment other than PNBs, were included. Access to the mothers was obtained through gatekeepers (gynecologists and general practitioners).

**Sample group 2.** A sample of 25 professionals, including psychologists, psychiatrists, gynecologists, staff nurses, and health visitors, was interviewed for their clinical observations of signs, symptoms, and expressions of PNBs in Pakistani mothers. These experts had at least five years of successive clinical experience in Pakistan. Access to these professionals was done through gatekeepers and snowball sampling techniques.

The verbatims were collected from both groups until the point of saturation and listed out after eliminating repetitions and slang. The ambiguities and the decision of item retention for screening the possibilities of PNBs were further discussed with three professors from the psychiatry, psychology, and gynecology departments of teaching hospitals. Finally, a list of 27 items was thoughtfully finalized for face validation and pilot study.

***Stage II: Face Validation and Pilot Study.***

Face validity, clarity, comprehension, item appropriateness, redundancy, and fidelity with the construct for screening PNBs with reference to Pakistani culture was determined through the evaluation of the scale items by six practicing experts, including gynecologists, psychiatrists, and psychologists, with the clinical experience of ten years or more. It was ensured that experts evaluate, comment, and suggest items salient for identifying the mothers inclined towards PNBs and not to diagnose them. 22 items received more than sixty percent of agreement from the experts regarding screening the mothers for PNBs. The five items were removed owing to their subtle directedness toward diagnosis.

Based on the recommendations by Julious, (2005) and Johanson & Brooks (2009), this list of 22 items with four-point ratings was piloted on the sample of fifteen mothers experiencing PNBs. By the end of this Stage, a list of 21 items was retained for establishing the psychometric properties of PNBSS.

***Stage III: Psychometric properties.***

The factorial structure, validity, and reliability of PNBSS were established on the purposive sample of 88 mothers with PNBs. The sample was more than three times the number of items based on assumptions by Klien (1993, 1994). With the help of gynecologists, careful assessments were made for the sample's past psychiatric history and current physical ailments. Only those mothers were included who had no history of psychological disorder and no current physical and psychological condition other than PNBs. These mothers were contacted at Gangaram hospital, Itifaq hospital, Services hospital, Mayo hospital, Fatima Memorial Hospital, Saira Memorial Hospital, Lady Aitcheson, Lady Wallington, PAF Hospital, and various private clinics in Lahore, Pakistan. The gynecologists served as gatekeepers to get access to and collect data from the participants.

***Stage IV: Establishing Known Group Validity, Sensitivity, Specificity, and Cutoff scores.***

The validity check of the scale was applied through known group validity. The optimal cutoff point for PNBSS with the best possible sensitivity and specificity was determined through Receiver Operating Characteristic (ROC) was used.

**Sample and procedure.** The data from 107 participants (with blues: N= 52 and without blues: N=55) for PNBs were subjected to the ROC curve (Gleitman, 1986). The non-clinical sample comprised mothers in the second trimester of the pregnancy, having at least one child before the current pregnancy, and no reported history or/ or presence of any other psychological and physical ailment. The criterion was thoughtfully determined to include mothers who could relate to the postnatal phase. Therefore, postnatal mothers with blues, referred by gynecologists, were selected as the comparative clinical group.

PNBSS was administered individually to the participants from both groups. ROC Curve helped to dichotomize a continuous scale of PNBSS to separate the respondents into ‘with inclination’ and ‘without inclination’ categories and place them into the groups they belong. However, because the distributions of the scores in these groups most often overlap, any cut point that is chosen will result in two types of errors: false negatives (that is, abnormal cases judged to be normal and it is calculated as 1-sensitivity) and false positives (that is, normal cases placed in the abnormal group) (Streiner & Cairney, 2007).

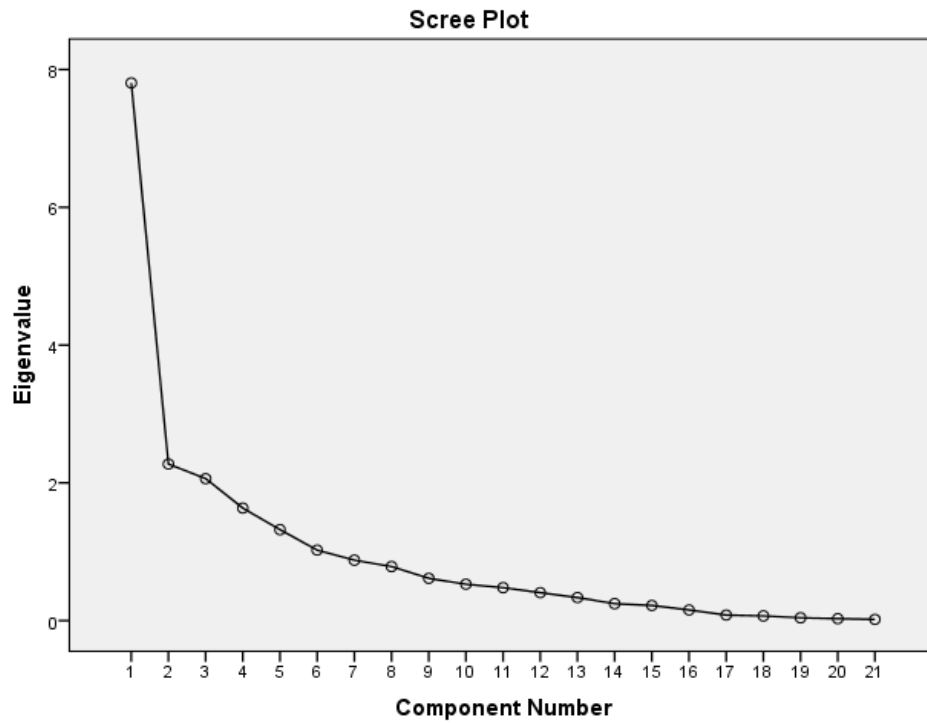
## **Results.**

### **Item Analysis of PNBSS.**

Scale items were analyzed in view of the construct by computing item-total correlations, alpha internal consistency, and factor analysis with varimax rotation. Bartlett’s test of sphericity indicated that the data was fairly distributed to allow the estimation of the potential factor structure. Four factors solution emerged as the best approximation of simple structure and the most interpretable solution. The factors were determined based on the classical criterion of Eigenvalues > 1 (Kaiser, 1974) and Scree plot (Cattell, 1966; Nunnally, 1978), and Kaiser’s criterion (1974) of total explained variance. The items in their individual factors were selected owing to the construct and their loadings of 0.3 or greater (See Table 1, Fig 1).

**Figure 1**

*Scree Plot Showing Extraction of Factors of Postnatal Blues Screening Scale (PNBSS) on 88 mothers with PNBs.*



**Table 1**

*Factor Structure, Eigen Values and Item total Correlation of 21 Items of PNBSS with Varimax Rotation (N = 88).*

Sr. No	Item	Rudimentary Blues	Over Sensitivity	Emotional Dysregulation	Somatic and Cognitive Disquietude	r
1	I suffer from constipation. مجھے قبض کی شکایت رہتی ہے۔	<b>.86</b>	.33	.19	.06	.73**
2	Being restricted to one room makes me want to cry. مجھے ایک کمرے تک محدود ہونے سے رونا آتا ہے۔	<b>.81</b>	.04	.24	.19	.62**
3	I have a burning sensation while urinating. مجھے پیشاب جل کر آتا ہے۔	<b>.76</b>	.27	.12	.02	.64**
4	I don't find any stability in my mood. مجھے اپنے موڈ میں توازن محسوس نہیں ہوتا۔	<b>.72</b>	.03	.13	.36	.59**
5	I get emotional over trivial things. معمولی چیزوں کے متعلق جذباتی ہوجاتی ہوں۔	<b>.61</b>	.51	.10	.07	.62**
6	I am forgetful of routine chores. روزمرہ کے کام بھول جاتی ہوں۔	<b>.55</b>	.37	.11	.01	.45**
7	I can't do anything on my own. میں کوئی بھی کام خود سے نہیں کرسکتی۔	<b>.48</b>	.22	.54	.12	.69**
8	I feel as if I have no life of my own.	.09	<b>.85</b>	.04	.12	.59**

	یوں محسوس ہوتا ہے کہ میری اپنی کوئی ذاتی زندگی نہیں رہی۔					
9	I feel like the birth of this child has added to my life problems.	.32	<b>.71</b>	.27	.19	.78**
	محسوس ہوتا ہے کہ اس بچے کی پیدائش نے میری زندگی کے مسئلوں میں اضافہ کیا ہے۔					
10	My failing health saddens me. اپنی صحت کی خرابی دیکھ کر افسوس ہوتا ہے۔	.10	<b>.68</b>	.31	.26	.67**
11	I get angry without a good reason. بغیر کسی معقول وجہ کے غصہ آتا ہے۔	.22	<b>.64</b>	.33	.04	.65**
12	I get upset to see my husband ignoring my needs over our child needs. شوہر کا میری ضروریات کو نظر انداز کر کے صرف بچے کے متعلق پوچھنا ناگوار گزرتا ہے۔	.43	<b>.62</b>	.18	.06	.69**
13	The advice and restrictions imposed by others anger me. دوسروں کے مشورے اور پابندیاں غصہ دلاتی ہیں۔	.00	.20	<b>.86</b>	.03	.40**
14	I remain anxious. گھبراہٹ اور بے چینی رہتی ہے۔	.17	.28	<b>.81</b>	.04	.67**
15	The baby's cry upset me. بچے کے شور سے دل گھبراتا ہے۔	.06	.06	<b>.68</b>	.10	.48**
16	I feel feverish. بخار کی سی کیفیت محسوس ہوتی ہے۔	.05	.41	.41	<b>.48</b>	.62**
17	I worry that I might not be	.41	.28	.53	<b>.33</b>	.77**



	able to fulfill this responsibility. پریشانی رہتی ہے کہ میں یہ ذمہ داری کیسے نبھاؤں گی۔					
18	I worry that something might happen to my child while I am asleep. پریشانی رہتی ہے کہ میرے سوتے اس بچے کو کہیں کچھ ہو نہ جائے۔	.04	.06	.11	<b>.80</b>	.32**
19	I find it hard to breastfeed my child. بچے کو اپنا دودھ پلانا تکلیف دہ محسوس ہوتا ہے	.06	.29	.08	<b>.79</b>	.51**
20	I get tearful for no apparent reason. بلاوجہ رونا آتا ہے۔	.21	.26	.29	<b>.70</b>	.53**
21	It seems that I am incapable of bringing up this child. یوں لگتا ہے کہ بچہ پالنا میرے بس کا روگ نہیں۔	.08	.17	.37	<b>.47</b>	.33**
	Eigen Values	7.08	2.27	2.06	1.63	
	% Variance	37.17	10.82	9.81	7.78	
	Cumulative %	37.17	47.99	57.81	65.59	
	Reliability Coefficients	.83	.84	.69	.71	
	Total Reliability Coefficient			0.90		

Items with .30 or above loading are boldfaced in the corresponding factor.

r: Item total correlation.

The items were originally developed in Urdu language and were translated using the Mappi guidelines (2008) for the publication purposes.

**Table 2***Factors' Description of PNBSS*

Sr. No	Factor Name	Total No of Items	Characterization
1	Rudimentary blues	7	Comprised of items focusing on basic and immediate postnatal issues
2	Over sensitivity	5	Assessing excessive emotional susceptibility of mothers
3	Affectual dysregulation	3	Assessing the expressions of poorly modulated mood response
4	Somatic and cognitive disquietude	6	Featuring physical and psychological perturbation in PNBs;

ROC curve helped to determine the power of a scale to correctly discriminate between groups, choose the optimal cut point, and identify the scale's sensitivity and specificity. The area under the curve (AUC) for PNBSS can be seen in figure 2.

**Figure 2**

AUC calculated by Receiver Operating Curve (ROC) for PNBSS.

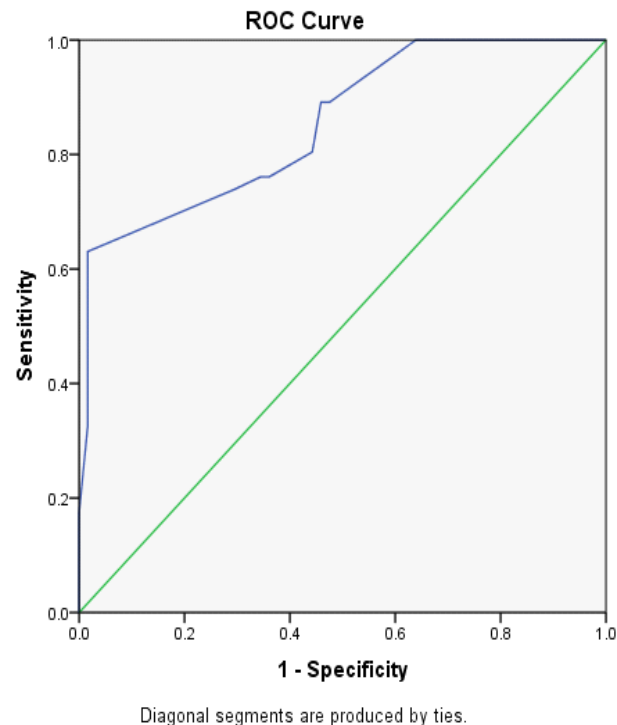


Figure 2 demonstrates the ROC curve for PNBSS. The graph constitutes the sensitivity on its vertical axis and 1-specificity on its horizontal axis. This indicates that the area in the upper left region provides the most useful discrimination regarding a cutoff score (Streiner & Cairney, 2007). The diagonal line, from (0, 0) to (1, 1), is indicative of discrimination by chance (50/50 conjecture). The ROC curve for PNBSS (AUC= 0.853) was well above this reference diagonal line (AUC= 0.50). A ROC curve giving AUC anything above 0.7 depicts the good discriminative power of the scale (Hosmer & Lemeshow, 2000). In this case, the value is 0.853, that validates the screening capability of PNBSS.

**Table 3**

*Area under the curve for PNBSS (N= 107).*

Area	St. Error	P	95% confidence Interval	
			Lower Bound	Upper Bound
.85	.04	.000	.781	.925

Table 3 displays significant tests of AUC for PNBSS. Since the 95% confidence interval (0.781, 0.925) is greater than .50, it can be reasonably concluded that AUC is significantly better than chance.

### **Cutoff scores for PNBSS.**

Although the ROC curve shown in Figure 2 gives some insightful information about the validity of the proposed PNBSS, it gives little information about the possible cutoff score beyond which a mother with a high inclination towards PNBs needs clinical attention and further assistance.

For this purpose, an in-depth discussion on the sensitivity and specificity values of PNBSS obtained at different cutoff scores is provided in Table 4.

**Table 4***Coordinates of the curve determining optimal cut-off point for PNBS (N= 107).*

Cutoff point	Sensitivity (True Positive Rate)	Specificity (True Negative Rate)	Youden's Index
12	1.00	.05	.05
14	1.00	.31	.31
16	1.00	.33	.33
18	1.00	.36	.36
20	.89	.52	.41
22	.89	.54	.43
24	.8	.56	.36
26	.76	.64	.40
28	.76	.66	.42
<b>30</b>	<b>.70</b>	<b>.90</b>	<b>.60</b>
32	.6	.98	.58
34	.54	.98	.52
36	.54	.98	.52
38	.50	.98	.48
40	.33	.98	.31
42	.13	1	.13
44	.06	1	.06
46	.00	1	0

*Note: Youden's Index = Sensitivity + Specificity – 1.*

It can be seen from this table that for certain cutoff scores, sensitivity is relatively high, but specificity is quite low, and vice-versa. Therefore, the priority was to determine a cutoff score that gives better values both for sensitivity and specificity. i.e., to screen the true positives correctly, as well as to identify the true negatives. So, to establish that score, Youden's index was computed, which indicates the best value at the score of 30. Therefore, 30 was determined as the final cutoff score for PNBSS.

### Known-Groups Validity.

The data obtained from the contrasted groups to identify cutoff scores were analyzed through a *t-test* to establish the known-group validity of PNBSS. The results testify to the strength of the scale to correctly differentiate between the mothers of both groups. For the estimation of the magnitude of the difference, Cohen's *d* was calculated.

**Table 5**

*Known- Group Validity of the Postnatal Blues Screening Scale (N=107).*

Sr.no	Variable	With Ailment n=52		Without Ailment n=55		t	p	Cohen's <i>d</i>
		M	SD	M	SD			
1	PNBSS	31.9	9.7	22.1	7.4	5.9	.000	1.1
2	Rudimentary Blues	10.5	3.5	7.3	2.9	5.1	.000	0.9
3	Over Sensitivity	7.9	2.9	5.3	2.2	5.3	.000	1.0
4	Emotional Dysregulation	4.4	1.8	2.9	1.2	5.1	.000	0.9
5	Somatic and Psychological Concerns	9.1	2.5	6.6	2.5	5.0	.000	1.0

The significant difference between the mothers with PNBs and without PNBs' groups with an effect size of 0.9 -1.1, i.e., one standard deviation, indicates the effectiveness of the assessment measure according to Cohen's conventions (Cohens, 1988).

### **Discussion**

The paucity of abetment for mental health, concomitant with the stigma of mentally disturbed, eschews most Pakistanis to ingress the psychiatric treatment. The stigma gets multifold in the case of a postnatal mother. Fearing the loss of her social identity, a mother prefers to mask her signs of disturbance unless she lands in the hospital's emergency unit. That, too, if she is lucky, not being the prey of spiritual quacks. Deflections like these can easily be prevented if the mother is assessed, validated, and psychoeducated before her hospital discharge. Owing to the clinical praxis, it was mandatory to establish a way forward for a clinician's psychological assessment of a postnatal mother. Therefore, it was found pertinent to develop a screening protocol to identify postnatal women at risk of developing psychological disturbance before their referral for formal assessment and management from a clinician. Unfortunately, Pakistan has the lowest mental illness patient-to-doctor ratios, i.e., the availability of one psychiatrist per half a million people (The Express Tribune, 2015), which can be expected to have decreased even more owing to the recent financial crises, economic, social, and political instability. In such circumstances where there is a scarce possibility of getting help for patients having mental health issues, the work on timely screening and prevention can benefit the population.

PNBSS was designed and developed owing to *Pakistani society's cultural, social, and familial norms and values*, which differ from the regions where the existing assessment tools were developed. The scale was developed on empirically explored indigenous phenomenology of PNBs from Pakistani samples, following the standardized investigation procedures. The

understanding was established and framed by incorporating expert opinions from actual stakeholders of the phenomenon, including psychiatrists, psychologists, gynecologists, and nursing staff.

Findings revealed few manifestations of PNBs quite similar to that of the western outlook mentioned in 'The Blues Questionnaire' (Kennerley & Gath, 1989), which was developed in England. Nevertheless, the items like "*I do not find any stability in my mood,*" "*I get tearful for no apparent reason*" "*I remain anxious,*" "*I worry that something might happen to my child while I am asleep*" "*I find it hard to breastfeed my child,*" "*I suffer from constipation,*" and "*I have burning sensation while urinating*" communicate the universal picture of this condition. Interestingly, findings informed the society's progression for accepting psychological distress as a significant health concern quite dissimilar to their previous generations (Mian & Rubeena, 1998). Despite this, it was difficult to break into the socially constructed idealism of motherhood in the sample to probe their psychological distress. The items like '*Being restricted to one room makes me want to cry*' elucidates the despondence of the Pakistani mothers complying with the obligation of *chilla* (*complete rest for forty days postnatal*). This tradition has been followed for ages in Pakistan to support new mothers from their families and significant others. However, somehow, it is hijacked by the ill-founded belief systems that reinforce the partial social isolation of the mother from routine and prevents her from any activity apart from childcare.

*The advice and restrictions imposed by others anger me, expressing* an orthodox and deeply rooted culture of unsolicited advice in Pakistan; that is oblivious to relationship and personal boundaries. People visiting the mother and newborn may not hesitate to take hold of the newborn and implement their ideology (sometimes ill-founded) without the parents' consent, especially the mother. Their intrusions possibly range from the swaddling style of the baby,

squeezing the nose and forehead of the baby to ‘make it beautiful,’ to the forceful suggestive plan for the couple’s subsequent pregnancy.

The expression *‘I get upset to see my husband ignoring my needs over our child needs’* depicts the pressure a mother receives from her husband to forgo her needs in favor of the child's needs all the time, and that also without indebtedness. Traditionally, Pakistani men are kept away from the labor rooms and the other trivia of motherhood. Due to this lack of exposure to the reality of motherhood, they lack cognizance of their wives’ needs as new mothers. Consequently, mothers feel themselves nothing more than a catalyst sprouting the next generation.

Moreover, having a baby influences the preexisting relationships, redefining the roles previously played by the couple (Ambrosini & Stanghellini, 2012). She is supposed to handle the new set of tasks along with the mental and physical readjustment in her previous responsibilities while living in a joint family system as a daughter-in-law, wife, and mother. Her plight to balance her preexisting and new identity as a mother (Stern & Stern, 1998) along with the mothering load owing to gendered nature of parenting (Mazumdar, 2023) in subcontinent is depicted as *‘I feel like the birth of this child has added to my life problems’*.

The items mentioned above are expressions of the underlying fear of personal and social rejection among Pakistani mothers. Their agony of striving for perfectionism insists they endure the historical trail of traditions, suggestions, and myths surrounding childbirth, and that is also without question. During all this, they are found entangled in the vicious cycle of unspeakable frustration and misery that is socially unacceptable to call for help, bringing profound psychological distress to the mothers. PNBSS explored these issues in the first place and, owing



to their prevalence in the sample, retained them as the significant indicators screening the otherwise indescribable misery.

PNBSS is undoubtedly a practical measure that can facilitate health professionals to assess postnatal mothers for the possibilities of psychological distress that is a strong predictor of developing subsequent PND (Afzal & Khalid, 2017; Henshaw et al., 2004). The scale interpretation is embedded in classical and modern literature, findings from the survey in current research, ground realities of the health sector, and workload limitations of health professionals in Pakistani hospitals. Considering all the possible implications and far-reaching consequences associated with cutoff scores, PNBSS' cutoff score was established by calculating the youden's index with the best possible sensitivity and specificity so that the chances of over and under-classification may be catered accurately.

The respondents were provided a modified Likert format displaying the varying experience frequencies instead of dichotomous options. It facilitated the respondents to think broadly about the conditions mentioned in the statements and respond accordingly. Furthermore, this response format helped identify the respondents falling in between the extremities and facilitated ascertaining the magnitude of their prodromes. Furthermore, the response options of 'never,' 'sometimes,' 'most of the times,' and 'always' somehow facilitated discerning the valetudinarians and the actual sufferers based on their response manner.

Timely assessment of the mother on PNBSS, accompanied by her health counseling, can help taper off the symptoms and prevent her from experiencing a more problematic puerperium. Moreover, the support and validation from her family, friends, confidants, and especially her husband can significantly improve her mental state.

**Limitations, Implications, and Future Suggestions.**

The oral administration of scale with few participants accompanied by their family members brings the likelihood of response bias in the assessment during stage III.

This research is fruitful in indicating the areas of empirical interest both from a methodological and cultural perspective. PNBSS is the benchmark for further research in the domain that can help execute more accurate indigenous research and findings on postnatal affective disorders in Pakistan. In addition, this research can direct the researchers to more sophisticated procedures and methods to explore and study more challenging and subtle subjective dimensions of postnatal psychological disturbances that may be difficult to grasp otherwise.

Future research can work further to draw the new aspects of the same phenomena with more advanced and sophisticated procedures, methodologies, and analyses to strengthen and generalize the current study's findings.

**Conclusion.**

This scale attempts to understand and identify the concrete manifestation of PNBs in Pakistani culture. The scale items are discussed in terms of the actual context of motherhood and its related transitions. Furthermore, mentioning the word of caution, the mothers with high scores on PNBSS should not be diagnosed with PNBs, unless a diagnostic interview by their clinician follows them. This tool is designed to screen mothers with a high inclination towards PNBs so that they may be monitored and followed up on for their symptoms.

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