Original Article

Validation of the Pashto Version of the Premature Ejaculation Diagnostic Tool (PEDT)

Hazratullah, Nasir Khan, Ishtiyaqurehman, Aminuddin and Ahsan Rafi

ABSTRACT

Objective: The research goal involved evaluating the validity of the Pashto version of the Premature Ejaculation Diagnostic Tool (PEDT) by assessing its relationship with clinical premature ejaculation (PE) diagnosis and intra-vaginal ejaculatory latency time (IELT).

Study Design: Prospective cross-sectional study

Place and Duration of Study: This study was conducted at the Urology Unit within the Surgery Department of Khyber Teaching Hospital in Peshawar from December 2020 to December 2021.

Methods: A total of 200 males within a 6-month minimum heterosexual relationship participated in the research. Participating subjects had to finish the PEDT questionnaire using the Pashto language.

Results: The study subdivided its population into two separate groups where 91 participants received clinical PE diagnoses while 71 participants did not have PE. Acquired PE was reported by 44 participants out of 60% (n = 44) who received PE diagnosis. Partakers in both groups engaged in sexual intercourse at the same pace achieving an average of two sessions weekly. Each demographic variable including mean age and relationship duration and education reached statistical parity between the two study groups. The participants with PE exhibited self-reported IELT times measuring 1.22 ± 0.52 minutes whereas other participants recorded IELT times measuring 3.73 ± 0.92 minutes. Self-reported IELT showed a negative relationship of 0.6 with results from the Pashto PEDT and the relationship achieved statistical significance at ($p < 0.05$). Patients scored 8 points or above on the PEDT tool were diagnosed with PE whereas scores of 8 points and below indicated no presence of PE. The diagnostic instrument produced nine false-positive outcomes in 73 participants while ten patients received incorrect negative results among 91 participants. The statistical measures calculated from the study demonstrated sensitivity of 89.01% (95% CI: 77.78% - 95.26%) alongside specificity at 87.32% (95% CI: 74.26% - 95.17%).

Conclusion: The Pashto-translated PEDT serves as both valid and reliable to identify PE in patients who speak Pashto. The tool achieved strong consistency between its items and produced statistical connections with medical PE evaluations and physical examinations.

Key Words: Premature Ejaculation Diagnostic Tool, Pashto, Validation, Psychometric, Reliability

INTRODUCTION

Men experience premature ejaculation among the most common sexual dysfunctions based on reports from different populations.[1] Nevertheless the wide discrepancy of prevalence stems from people avoiding discussion of this condition and the absence of standard definitions and diagnostic tests.[2]

Department of Urology, Khyber Teaching Hospital in Peshawar.

Correspondence: Dr. Ahsan Rafi Trainee Ragistrar Urology Khyber Teaching Hospital in Peshawar.
Contact No: 03339227791
Email: ahsanrafi36@yahoo.com

Various definitions in literature include ejaculatory latency with difficulty controlling ejaculation and psychologica DSM-IV-TR's previous definition of PE emerged from clinical assessment together with patient-observed symptoms.[3]

After some time, the International Society for Sexual Medicine (ISSM) came up with a standard, evidence-based description of PE.[4] This explanation says that the disease can be either lifelong or learned, and the differences between them are: (1) Ejaculation happening within one minute of vaginal penetration for lifelong PE or a clinically significant drop in latency to three minutes or less for acquired PE; (2) Not being able to delay ejaculation during almost all vaginal penetrations; and (3) Bad personal outcomes, such as upset, anger, or avoiding sexual intimacy.

The Arabic Index of Premature Ejaculation (AIPE) and the Premature Ejaculation Diagnostic Tool (PEDT) are two of the most often used questionnaires as part of the objective evaluation of premature ejaculation (PE).

Several diagnostic tools have been created to examine PE in an objective manner. Known as a tool that is generally acknowledged, the PEDT is a brief questionnaire consisting of five questions[5]. It has a basic scoring system: a score that is more than 11 indicates that a diagnosis of PE has been made, a score of 9 or 10 indicates that PE is likely to be present, and a score that is lower than 8 indicates that PE is not present. This instrument has been translated and verified in a variety of languages, and it has grown to become a standard for physical education evaluation. The Pashto version, on the other hand, had not yet been produced and established as reliable.

Pashto, a language spoken widely in Pakistan and Afghanistan, is an essential medium for effective communication in these regions. PE can have a profound impact on an individual's quality of life, extending beyond sexual health to psychological and emotional well-being. Despite these effects, only a small proportion of individuals seek treatment. Language barriers often pose a significant challenge for both patients and healthcare providers in diagnosing and managing PE.[6]

This study aims to translate and validate the PEDT for the Pashto-speaking population. Providing a version of the questionnaire in the native language facilitates a more comfortable environment for discussing the condition, allowing for accurate assessment, diagnosis, and follow-up care.

METHODS

The cross-sectional study received Ethical Review Committee approval for implementation within a twelve-month timeframe from December 2020 to December 2021 at the Urology Section of the Department of Surgery in Khyber Teaching Hospital Peshawar. The translation procedure followed the recommendation framework from the World Health Organization (WHO).

Two Pashto-speaking urologists administered the Premature Ejaculation Diagnostic Tool (PEDT) translation by reviewing a Pashto version of the questionnaire derived from their combined six or more years of clinical experience in PE management. The participating clinicians reached a mutual agreement to finalize one standardized version of the questionnaire in Pashto. The draft passage received linguistic assessment from experts at a respected Pashto department which led to small amendments to meet cultural standards. A bilingual linguist at that same institution provided the back-translation of the Pashto version into English. The final version of the Pashto PEDT resulted from comparing the original English text with its back-translated version to determine their precision levels.

Male participants between 20 and 60 years completed the study if they maintained one-year stable heterosexual partnerships while providing consent through writing and verbal communication. People were ineligible for recruitment when their medical history included erectile dysfunction and when they had major physical health conditions including angina or heart disease as well as kidney disease and liver conditions and psychological disorders and penile deformities such as Peyronie's disease and psychiatric medication usage.

A pilot study was conducted with 30 participants, comprising 15 individuals with PE and 15 without PE, to assess the diagnostic accuracy and user-friendliness of the Pashto version. The results demonstrated that the questionnaire was both effective and easy for participants to comprehend and complete.

Data collected included demographic information (age, marital status, relationship duration, and education level), comorbid conditions, intercourse frequency, self-reported intra-vaginal ejaculatory latency time (IELT), and PE type (lifelong or acquired). Participants completed the Pashto PEDT before and after consultation.

With the help of SPSSTM version 21.0, the data analysis was carried out. Cronbach's alpha was used to assess the psychometric qualities of the Pashto PEDT. An acceptable value of ≥0.70 was determined to be utilized for this evaluation. Both the association between self-reported IELT scores and PEDT scores, as well as the relationship between clinician-diagnosed PE scores and PEDT scores, was investigated with the use of Spearman correlation. A comparison was made using Pearson correlation to examine the PEDT scores obtained before and after consultation. A threshold of ≥0.70 was used to indicate that the reliability of the results was satisfactory.

RESULTS

Initially, 200 eligible participants completed the questionnaires during the first interview. However, 38 participants were lost to follow-up before the second interview. Consequently, the final analysis included 91(56.2%) individuals diagnosed with clinical PE and 71(43.8%) individuals without PE. Among those in the PE group, 44 (60%) were identified with acquired PE. The average ages of participants with and without PE were 36.05 ±8.65 years and 36.62 ±6.024 years, respectively. Both groups reported a similar frequency of sexual activity, approximately twice per week. The two groups were comparable in terms of mean age, frequency of intercourse, relationship duration, and educational background.

The mean self-reported IELT was significantly shorter in the PE group 1.22 ± 0.52 minutes compared to the non-PE group 3.73 ± 0.92 minutes (Table I). A strong negative correlation was observed between the Pashto PEDT scores and self-reported IELT r = -0.6, p < 0.05. Using a cutoff score of >8 for diagnosing PE and ≤8 for

ruling it out, the Pashto PEDT exhibited a false-positive rate of 9 (12.67%), where the tool indicated PE, but clinical evaluation confirmed no PE. Conversely, the false-negative rate was 10 (10.98%), where the tool failed to identify PE that was confirmed through clinical diagnosis.

It was determined that the Pashto PEDT had a sensitivity of 89.01% (95% confidence interval: 77.78% - 95.26%) and a specificity of 87.32% (95% confidence interval: 74.26% - 95.17%), respectively, as shown in Table 2. A score of 0.94 on the Cronbach's alpha test indicated that the Pashto PEDT had an outstanding level of internal consistency, with a 95% confidence interval ranging from 0.905 to 0.948. The reliability of

the test-retest was found to be substantial across all five items, as shown by the Pearson correlation value of 0.944 for the overall PEDT score ($p < 0.001$), as presented in Table 3.

There was no significant difference in the mean PEDT scores between the two groups before and after the consultation. The scores for the Physical Education group consisted of 13.42 ± 2.57 and 13.23 ± 2.49, respectively. In a similar manner, the scores obtained by the non-physical education group before and after the consultation were 6.94 ± 3.43 and 6.45 ± 3.17, respectively.

Table No.I: Demographic Characteristics of Study Participants

	Total n=162	Clinical PE n= 91	No clinical PE n= 71	P value
Age (years)	36.31 ± 7.59	36.05 ± 8.652	36.62 ± 6.024	0.632
Frequency of Intercourse (weekly)	1.89 ± 0.88	1.75 ± 0.87	2.070 ± 0.867	0.25
Duration of Relationship	8.651 ± 6.16	8.923 ± 6.93	8.30 ± 5.03	0.52
Education [n (%)] Primary school High school Graduate	59 (36.4) 57 (35.2) 46 (28.4)	29 (17.90) 36 (22.2) 26 (16.0)	30 (18.5) 21 (12.96) 20 (12.34)	
Self-reported IELT (minutes)	2.32 ± 1.44	1.22 ± 0.52	3.73 ± 0.92	<0.001
PEDT score Pre-consultation	10.58 ± 4.3	13.42 ± 2.57	6.94 ± 3.43	<0.001
PEDT score Post-consultation	10.26 ± 4.38	13.23 ± 2.49	6.45 ± 3.17	<0.001

Table No.2: Sensitivity and Specificity of PEDT scores of greater/lesser than 8 with clinical diagnosis of PE

	Physician diagnosis PE % (n)	Physician diagnosis NO PE % (n)	Total
PEDT >8	89.01 % (81)	12.67% (9)	90
PEDT ≤ 8	10.98 % (10)	87.32% (62)	72
Total	n = 91	n= 71	

Table No.3: Test re-test reliability of each question and total PEDT score

	Question 1	Question 2	Question 3	Question 4	Question 5	Total
R	0.946	0.849	0.848	0.925	0.942	0.944
P value	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

DISCUSSION

Premature ejaculation (PE) is commonly characterized by an intra-vaginal ejaculatory latency time (IELT) of less than one minute and can be evaluated using several diagnostic tools, including the widely accepted Premature Ejaculation Diagnostic Tool (PEDT).[8] Given its global prevalence, the PEDT has been translated and validated in numerous languages, such as Korean, Persian, French, Chinese, Russian, and, more recently, Urdu.[9-12] The prevalence of PE varies widely across regions, but data from Pakistan remains scarce. A study conducted in a tertiary care hospital in Khyber Pakhtunkhwa reported that PE affected approximately 13% of the male population, making it the second most common sexual dysfunction after erectile dysfunction.[13]

Other studies have documented prevalence rates ranging between 24% and 27%, emphasizing the necessity for more localized research.[14]

Pashto, spoken by nearly 50 million people worldwide, is the native language for approximately 15% of Pakistan's population. It holds official status in Khyber Pakhtunkhwa and the northern districts of Balochistan and serves as Afghanistan's national language. Additionally, it is spoken in various parts of Pakistan, such as Punjab, Gilgit-Baltistan, Islamabad, and Karachi, as well as among Pashto-speaking communities in Iran, Tajikistan, the UAE, and the UK.[15]

Despite the fact that a number of diagnostic tools related to urology have been translated and validated in other languages, such as the PEDT and the International

Index of Erectile Function (IIEF).[16] This research represents the first time that an andrology-related diagnostic tool has been translated and verified into Pashto. The Pashto version of the PEDT addresses a critical need by enabling discussions about sexual health between clinicians and patients in Pashto-speaking communities. Despite the simplicity of the questionnaire, consisting of only five items, the translation process posed significant challenges. Finding culturally appropriate and comprehensible Pashto equivalents for specific terms, such as "ejaculation" and "penetration," was particularly difficult due to cultural sensitivities and the absence of commonly used, non-obscene terminology for these concepts in Pashto.

Premature ejaculation (PE) is a culturally sensitive topic, and open conversations about sexual health are uncommon, even between partners. As the PEDT is a self-administered questionnaire, using language that is clear and easy to understand was crucial. Our findings indicated that participants were able to comprehend the translated questionnaire effectively, likely due to the clinical setting in which it was provided, minimizing the need for assistance during completion.

The Pashto version of the PEDT was found to be both reliable and user-friendly for Pashto-speaking populations. It demonstrated strong internal consistency, with a Cronbach's alpha of 0.93, comparable to the Persian version ($\alpha = 0.89$).[10] The significant correlation between Pashto PEDT scores and self-reported IELT supports the tool's validity. However, since the diagnosis of PE involves more than just IELT, the moderate negative correlation ($r = -0.6$) between IELT and PEDT scores highlights the importance of considering situational PE and other contributing factors during clinical evaluations.

Test-retest reliability was evaluated by comparing PEDT scores before and after the clinical visit, showing strong consistency and correlation. However, the short interval between the two assessments may be a limitation, as a longer interval could introduce biases due to changes in symptoms or the effects of treatment.[17]

The present work serves as the initial attempt to translate and validate the PEDT in Pashto by following WHO-recommended validation procedures. The tool represents an objective system for PE diagnosis among Pashto-speaking people and provides needed research clarity for this population. The tool provides healthcare providers with a scientific methodology to assess treatment success rates while researchers obtain standards for evaluating different therapeutic approaches in this population.

This research demonstrates strength through its use of recognized translation and validation frameworks together with its pioneering work in studying an underprivileged cultural issue. The adoption of this diagnostic tool for PE makes new research and better service delivery possible for Pashto-speaking populations.

Limitations of the Study: The study happened in one center and this limits how much its findings apply to Pashto-speaking individuals beyond that location. Multiple research locations with varied participant demographics need to conduct additional studies to validate these current research findings.

CONCLUSION

The Pashto adaptation of the Premature Ejaculation Diagnostic Tool (PEDT) serves as a reliable and valid measurement tool for PE diagnosis among people who speak Pashto. The instrument showed outstanding reliability measurements and produced meaningful associations between its results and patient-reported IELT duration and PE clinical diagnoses. Additional population-based as well as multi-center studies need to happen to verify this tool's use as a standard diagnostic instrument for Pashto-speaking patients even though it works well in clinical environments.

Author's Contribution:

Concept & Design or acquisition of analysis or interpretation of data:	Hazratullah, Nasir Khan, Ishtiyaqurehman
Drafting or Revising Critically:	Aminuddin, Ahsan Rafi
Final Approval of version:	All the above authors
Agreement to accountable for all aspects of work:	All the above authors

Conflict of Interest: The study has no conflict of interest to declare by any author.

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