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TRANSLATION AND VALIDATION OF POSITIVE MEANING IN CAREGIVING SCALE IN URDU LANGUAGE FOR MOTHERS OF CHILDREN WITH AUTISM SPECTRUM DISORDER

Original Research

Fatima Salman[1]*, Tehreem Arshad[2], Aisha Sitwat[3]
[1]PhD Scholar, Center for Clinical Psychology, University of the Punjab, Lahore, Pakistan.
[2]Assistant Professor, Center for Clinical Psychology, University of the Punjab, Lahore, Pakistan.
[3]Former Assistant Professor, Center for Clinical Psychology, University of the Punjab, Lahore, Pakistan.
Corresponding Author: Fatima Salman, PhD Scholar, Center for Clinical Psychology, University of the Punjab, Lahore, Pakistan, Fatima.qazi264@gmail.com
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ABSTRACT

Background: Autism Spectrum Disorder (ASD) presents ongoing emotional and practical challenges for primary caregivers, especially mothers. While much focus has been placed on caregiver burden, recent research emphasizes the importance of assessing positive caregiving experiences such as personal growth, emotional resilience, and meaning in life. The Positive Meaning of Caregiving Scale (PMCGS) is a reliable instrument in Western contexts, yet a culturally adapted Urdu version has been lacking in Pakistan. Addressing this gap is crucial for inclusive mental health assessment and support.

Objective: To translate, culturally adapt, and validate the Positive Meaning of Caregiving Scale in Urdu for use among mothers of children with ASD in Pakistan.

Methods: This cross-sectional study involved 300 married mothers of children diagnosed with ASD within the past 12 months. The translation process followed the MAPI Institute's linguistic validation guidelines, including forward and backward translation, pilot testing, and expert review. Internal consistency was evaluated using Cronbach's alpha, and construct validity was examined via confirmatory factor analysis (CFA). Cross-language validation was conducted using Pearson product-moment correlation between English and Urdu versions.

Results: The Urdu version demonstrated excellent internal consistency ($\alpha = 0.97$). The mean score was 32.40 (SD = 11.57), with scores ranging from 11 to 55. CFA indicated a strong model fit (CFI = 0.979, TLI = 0.973, NFI = 0.969), although RMSEA was 0.083. All items showed significant positive inter-item correlations, and cross-language correlations ranged from 0.12 to 0.83 ($p < 0.05$ to $p < 0.01$), indicating robust cross-linguistic reliability.

Conclusion: The Urdu-translated PMCGS is a psychometrically sound and culturally appropriate tool for measuring positive caregiving experiences among Urdu-speaking mothers of children with ASD, offering valuable implications for clinical practice and research in Pakistan.

Keywords: Autism Spectrum Disorder, Caregivers, Cross-Cultural Validation, Mothers, Psychometrics, Urdu Language, Validation Studies.

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INTRODUCTION

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by differences in brain function that significantly impact communication, social interactions, and behavior. Symptoms often emerge in early childhood and may include avoiding eye contact, delayed speech development, repetitive behaviors, sensory sensitivities, and a preference for routines. These manifestations can vary widely in severity and presentation among individuals. In addition to core symptoms, children with ASD may exhibit co-occurring difficulties such as learning delays, hyperactivity, anxiety, and atypical responses to environmental stimuli (1–3). As the global prevalence of ASD continues to rise, attention has increasingly turned toward the broader family dynamics and the psychosocial experiences of caregivers, particularly parents who serve as the primary source of care and support. The role of caregiving in the context of ASD has gained prominence in mental health and positive psychology research. Parents, especially mothers, often navigate overwhelming emotional, social, and financial challenges while caring for children with autism (4,5). These challenges may include coping with developmental delays, managing disruptive behaviors, and addressing communication impairments, all while balancing professional, familial, and societal responsibilities. Caregivers frequently report heightened psychological stress, strained marital relationships, and social isolation, compounded by the scarcity of specialized health and educational services, particularly in low-resource settings (6–8). The emotional toll of caregiving is often intensified by the uncertainty surrounding the child's future and prevailing social stigmas, especially in cultures where disability is still heavily misunderstood. Despite these stressors, caregiving is not without its rewarding dimensions. A growing body of literature has highlighted the positive meaning caregivers can derive from their experiences. Feelings of personal growth, enhanced purpose, and the development of emotional resilience are commonly reported outcomes among caregivers who engage meaningfully in the process (9,10). Some describe caregiving as an opportunity to give back, achieve emotional mastery, or discover new perspectives on life and relationships. These positive perceptions can serve as protective factors, mitigating psychological distress and fostering well-being, even in highly demanding situations.

It is noteworthy that while the positive meaning of caregiving has been widely studied in Western populations using validated scales, there remains a glaring gap in non-Western contexts, such as Pakistan. In particular, there is no standardized, culturally appropriate instrument available in Urdu to assess the constructive aspects of caregiving. This lack of linguistically and contextually tailored tools significantly limits the ability of researchers and clinicians to understand and support caregivers, especially mothers of children with ASD, in the Pakistani context. Given the importance of language in shaping perceptions and experiences, adapting such tools into Urdu is a necessary step toward inclusive and culturally sensitive mental health research. Pakistan presents a unique sociocultural landscape, where collectivist traditions, religious values, and extended family systems influence caregiving dynamics. At the same time, economic constraints and widespread stigma associated with disability add complexity to the caregiving experience. Despite these hurdles, many caregivers exhibit remarkable strength and resilience, often grounded in deep familial bonds and faith-based coping mechanisms. However, to fully understand and support these caregivers, it is essential to document not only their struggles but also the strengths they derive from caregiving. This perspective is crucial in shaping health interventions, support programs, and policy frameworks that are both effective and empathetic. To address this critical gap, the current study seeks to translate and validate an established positive meaning of caregiving scale into Urdu, following internationally recognized protocols for cross-cultural adaptation (11,12). Through a rigorous process involving forward and backward translation, expert review, pilot testing, and psychometric validation, the study aims to ensure that the adapted tool maintains semantic and conceptual equivalence while being culturally resonant. This validated Urdu version will provide researchers, clinicians, and policymakers with a reliable means to assess the strengths, motivations, and psychological well-being of caregivers in Pakistan. The primary objectives of this research are to translate a positive meaning of caregiving scale into Urdu and to validate its use among mothers of children with Autism Spectrum Disorder.

METHODS

The present study employed a cross-sectional research design to translate and validate the Positive Meaning of Caregiving Scale in Urdu, targeting a sample of 300 mothers of children diagnosed with Autism Spectrum Disorder (ASD) from various regions of Lahore, Pakistan. Participants were recruited through multiple special education centers and autism support facilities. The inclusion criteria required participants to be married mothers aged 25 to 40 years, with one child aged 4 to 12 years having a confirmed diagnosis of ASD

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made within the past 12 months. Exclusion criteria included mothers of children with any comorbid conditions alongside autism, non-primary caregivers, mothers employed in special education institutions, and those who were divorced or separated. These strict selection parameters were applied to ensure sample homogeneity and reduce confounding variables related to caregiving context. However, it is worth noting that excluding divorced and separated mothers, though potentially justified for controlling familial support factors—may limit the generalizability of findings, especially in real-world caregiving scenarios where single mothers form a considerable caregiving population. Demographic data indicated that all participants were married and served as primary caregivers, with 100% receiving support from family members. Among them, 71% reported spousal assistance in child supervision. Educational backgrounds varied, with the highest proportion having completed only primary education. The employment status distribution included 44% employed, 41% homemakers, and 15% unemployed. The average age of the children was 6.19 years (SD = 2.73), and the gender distribution revealed a slightly higher proportion of female children (57%) compared to males (43%). All children included had no additional comorbid conditions, and none were diagnosed more than 12 months prior to the study.

Positive Meaning Caregiver Scale

The Positive Meaning of Caregiving Scale used in this study was based on the adaptation proposed by Werner and Shulman (2015) (13). The scale comprises 11 items derived from qualitative caregiver responses in a study by Meyers et al. (2009) and supplemented by the 5-item Perceived Benefits scale developed by Green (2007). An example item includes, “Being a parent/carer to an autistic child has taught me kindness, patience, and happiness.” Responses were rated on a 5-point Likert scale from 0 (strongly disagree) to 4 (strongly agree), and a composite score was computed by averaging the item scores. The internal consistency for the Urdu-adapted scale in this study was excellent ($\alpha = 0.91$), closely mirroring reliability indices reported in the original research ($\alpha = 0.86$).

Assessment Measures

To ensure conceptual and linguistic alignment, the translation and validation of the Positive Meaning of Caregiving Scale were carried out according to the Linguistic Validation methodology as outlined by the MAPI Institute (2008). This structured approach facilitated the cultural adaptation of the scale while maintaining its semantic integrity and clinical relevance in the Pakistani context.

POSITIVE MEANING OF CAREGIVING SCALE

Conceptual Definition: Before initiating the translation, a detailed conceptual analysis was conducted to define and clarify the meaning of each item. This step ensured that the underlying psychological constructs of the original instrument were preserved in the Urdu version. Each item's content was critically examined to reflect the cultural, emotional, and familial values relevant to caregivers in Pakistani society.

Forward Translation: Two bilingual translators—one MPhil scholar and one MSc student—independently translated the original English version into Urdu. A reconciliation meeting, supervised by the research advisor, was held to merge both translations into a single, harmonized Urdu version. This collaborative effort helped resolve semantic inconsistencies and contextual ambiguities.

Backward Translation: To assess the fidelity of the translated scale, one independent bilingual lecturer performed a backward translation of the reconciled Urdu version into English. This version was then compared with the original scale to evaluate conceptual and linguistic equivalence. Necessary revisions were made to refine the wording and ensure that the intended meanings were retained.

Pilot Testing: Pilot testing was conducted with a convenience sample of ten university students to ensure the comprehensibility of the Urdu translation. Participants were asked to evaluate each item’s clarity and relevance. Feedback confirmed that the instrument was easy to understand and culturally appropriate for the target population.

Proofreading: A final proofreading phase was carried out prior to the main data collection. This step focused on correcting grammatical, typographical, and syntactical errors in the Urdu version. The final version was deemed accurate and ready for field administration.

ETHICAL CONSIDERATION

Ethical approval for the study was obtained from the Board of Advanced Studies and Research, Center for Clinical Psychology, University of the Punjab, Lahore. Prior to participation, informed consent was obtained from all mothers. They were informed about the

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study's purpose, their voluntary right to withdraw at any time, and assurances of confidentiality and anonymity were emphasized. Additionally, permission to translate and use the assessment instrument was secured from the original authors.

Procedure

Data collection occurred in two phases. In the first phase, half the participants completed the original English version of the scale while the remaining half completed the Urdu version. In the second phase, participants who had previously completed the English version filled out the Urdu version and vice versa. This cross-administration approach allowed for the evaluation of test equivalence and linguistic validity. Participants were approached through their respective special education centers and were individually thanked after completion of the questionnaires for their participation and cooperation.

RESULTS

The study included a total of 300 married mothers of children diagnosed with Autism Spectrum Disorder within the past 12 months. All participants confirmed their status as the primary caregiver and reported assistance from at least one family member in caregiving. A substantial proportion, 71% (n=212), reported spousal assistance in supervising their child, while 29% (n=88) did not receive any such support. The gender distribution of the children showed that 57% (n=172) were female and 43% (n=128) were male. The mean age of the children was 6.19 years (SD = 2.73), and none had any reported comorbid medical or psychological conditions. In terms of educational background, 46% (n=137) of the mothers had received only primary education, followed by 22% (n=67) with secondary education, 15% (n=45) with higher secondary, 9% (n=27) with an undergraduate degree, and 8% (n=24) having attained postgraduate qualifications. Employment status varied, with 44% (n=131) employed, 41% (n=123) identifying as homemakers, and 15% (n=46) as unemployed. All mothers reported having a single child diagnosed with ASD, and none reported diagnosis dates exceeding 12 months from the time of data collection. The psychometric evaluation of the Urdu version of the Positive Meaning of Caregiving Scale demonstrated excellent internal consistency, with Cronbach's alpha recorded at 0.97. The scale's mean score was 32.40 (SD = 11.57), with both actual and potential score ranges extending from 11 to 55. The distribution was within normal limits as indicated by skewness (0.13) and kurtosis (-0.65), falling in the acceptable range for parametric analyses.

For cross-language validation, Pearson product-moment correlation was computed between the English and Urdu versions of the scale. The correlation coefficients for items 3 to 11 ranged from 0.64 to 0.83 and were highly significant ($p < 0.01$), indicating strong item-level consistency across languages. Items 1 and 2 yielded lower but statistically significant correlations ($r = 0.13$ and $r = 0.12$ respectively; $p < 0.05$), suggesting possible cultural or linguistic ambiguities in translation that warrant further refinement. Confirmatory Factor Analysis (CFA) further supported the structural validity of the Urdu version. The model fit indices demonstrated an overall strong fit: Comparative Fit Index (CFI = 0.979), Tucker-Lewis Index (TLI = 0.973), Incremental Fit Index (IFI = 0.979), and Normed Fit Index (NFI = 0.969) were all well above the recommended threshold of 0.95, confirming an excellent fit. The chi-square to degrees of freedom ratio (CMIN/DF = 3.080) was slightly above the ideal cutoff of 3 but remained within the acceptable range. However, the Root Mean Square Error of Approximation (RMSEA = 0.083) indicated a mediocre fit, and the PCLOSE value of 0.000 suggested the RMSEA was significantly greater than 0.05. Despite these limitations, the overall model performance supports the structural integrity and reliability of the translated instrument.

Table 1: Descriptives of Sample Characteristics (N=300)

Variables	M	SD	F	P
Marital Status				

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Married			300	100
Divorced (Exclusion Criteria)			0	0
Single (Exclusion Criteria)			0	0
Educational Level				
Primary			137	46
Secondary			67	22
Higher Secondary			45	15
Undergraduate			27	9
Postgraduate			24	8
Employment Status				
Employed			131	44
Unemployed			46	15
Homemaker			123	41
Age of Child with Autism	6.19	2.73		
Child's Gender				
Male			128	43
Female			172	57
Child Diagnosed in Past 12 months?				
Yes			300	100
No			0	0
Any Comorbid Condition				
Yes			0	0
No			300	100
Are you primary caregiver of your child?				
Yes			300	100
No				
Is your spouse assist you in supervising the child				
Yes			212	71
No			88	29
Do any family member assist you in caring?				
Yes			300	100
No			**0**	**0**

Table 2: Psychometric Properties of the Positive Meaning of Caregiver Scale Urdu Version (N=300)

Variable	M	SD	Potential Range	Actual Range	α	Skewness	Kurtosis
PMOGS (Urdu Version)	32.40	11.57	11-55	11-55	.97	.13	-.65

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Table 3: Correlation in English and Urdu Items of Self-Compassion Scale

Items	English-Urdu Items correlation
Item 1	.13*
Item 2	.12*
Item 3	.75**
Item 4	.75**
Item 5	.76**
Item 6	.83**
Item 7	.77**
Item 8	.72**
Item 9	.78**
Item 10	.82**
Item 11	**.64****

Table 4: Confirmatory Factor Analysis of Self-Compassion Scale Urdu Version (Indices of Model Fit)

Fit Index	Value	Interpretation
CMIN/DF	3.080	Acceptable (ideal < 3, but ≤ 5 is tolerable)
CFI	0.979	Excellent (≥ 0.95 is great)
TLI (NNFI)	0.973	Excellent
IFI	0.979	Excellent
NFI	0.969	Excellent
RMSEA	0.083	Mediocre (above 0.08 but not terrible)
PCLOSE	0.000	Indicates RMSEA is significantly > 0.05

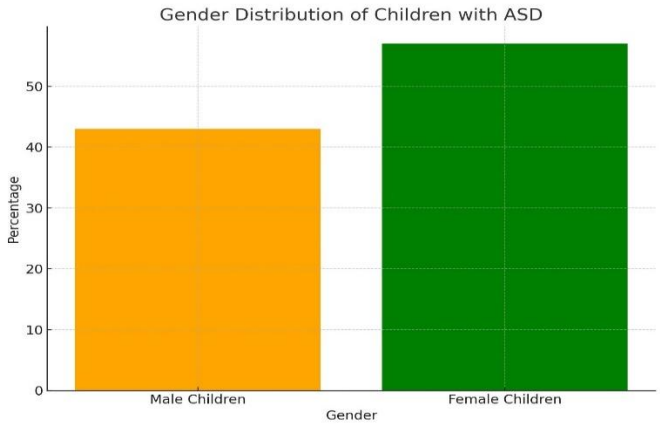


Figure 1 Gender Distribution of Children with ASD

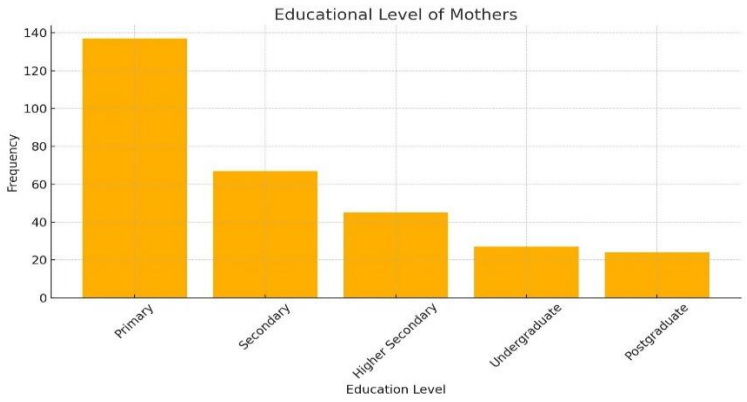


Figure 2 Educational Level of Mothers

DISCUSSION

The present study successfully achieved its objective of translating and validating the Positive Meaning of Caregiving Scale (PMCGS) into Urdu for use among mothers of children with Autism Spectrum Disorder (ASD) in Pakistan. The translation process adhered to

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rigorous guidelines, ensuring conceptual and linguistic equivalence through forward and backward translation, followed by pilot testing and refinement. The scale's language was found to be simple, culturally resonant, and easily comprehensible to the target population, which aligns with the standards for cross-cultural adaptation of psychological instruments. The psychometric evaluation of the Urdu version yielded robust findings, demonstrating excellent internal consistency with a high Cronbach's alpha. This supports previous literature that emphasized the reliability of the original scale in diverse caregiving populations (14-16). Furthermore, the significant positive correlations between the English and Urdu versions across all items confirmed the cross-language validity of the adapted tool. These results indicate that the Urdu PMCGS reliably captures the intended construct of positive meaning in caregiving, offering a dependable measure for future psychological and clinical assessments within Urdu-speaking populations. Confirmatory factor analysis provided further evidence of the scale's structural validity (17,18). Most fit indices surpassed conventional thresholds, reflecting a well-fitting model and reaffirming the factor structure of the original instrument. While the RMSEA value was slightly above the ideal threshold, it remained within an acceptable range, suggesting that the overall model was sound. This is consistent with earlier validation studies that reported strong factorial integrity of the PMCGS across cultural settings (19-21). The study's strengths lie in its methodologically rigorous translation protocol, large sample size, and the comprehensive evaluation of both linguistic and statistical reliability. The inclusion of mothers from diverse educational and occupational backgrounds enhances the generalizability of findings within urban Pakistani contexts. Moreover, the study addresses a significant gap in caregiving research by introducing a culturally and linguistically adapted tool that highlights the positive dimensions of caregiving—an aspect often overshadowed by burden-focused measures in low- and middle-income countries.

However, certain limitations must be acknowledged. The exclusive inclusion of married mothers limited the diversity of caregiving experiences, excluding perspectives of divorced, separated, or widowed caregivers who may encounter distinct psychosocial challenges. The lack of analysis examining how demographic variables such as education, employment status, or spousal involvement may influence positive caregiving perceptions represents a missed opportunity to deepen contextual insights. Additionally, while the scale was pilot tested among university students, future studies should consider pilot testing directly among caregivers to capture population-specific linguistic nuances more accurately. The current findings carry important implications for both clinical practice and research. A validated Urdu version of the PMCGS can facilitate culturally relevant assessments and enable practitioners to identify strengths and sources of resilience among caregivers. This aligns with a strengths-based approach to mental health care, particularly within collectivist societies where caregiving is deeply embedded in familial and religious roles. The scale also holds potential for future interventional research exploring how positive caregiving perceptions may buffer psychological distress or promote well-being among parents of children with neurodevelopmental disorders. To build upon the current findings, future research should explore the scale's predictive validity, convergent associations with other psychological constructs such as depression, anxiety, or resilience, and its applicability across various caregiving populations including fathers, grandparents, and non-parental caregivers (22,23). Additionally, longitudinal studies could provide insights into how positive caregiving perceptions evolve over time and influence long-term caregiver outcomes. In conclusion, the study provides strong support for the Urdu translation of the Positive Meaning of Caregiving Scale as a valid and reliable measure. By offering a culturally appropriate tool to assess affirmative caregiving experiences, it paves the way for a more balanced and holistic understanding of caregiver well-being in Pakistan and similar non-Western contexts.

CONCLUSION

In conclusion, the study established that the Urdu version of the Positive Meaning of Caregiving Scale is both a valid and reliable instrument for assessing affirmative caregiving experiences among mothers of children with autism spectrum disorder. By preserving the conceptual integrity of the original scale and ensuring cultural and linguistic relevance, this research contributes a valuable tool to the field of mental health and caregiver support in Pakistan. Its practical application holds promise for clinicians, researchers, and policymakers seeking to better understand and foster resilience, emotional well-being, and personal growth within caregiving populations in Urdu-speaking communities.

AUTHOR CONTRIBUTION

Author	Contribution
Fatima Salman*	Substantial Contribution to study design, analysis, acquisition of Data

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	Manuscript Writing Has given Final Approval of the version to be published
Tehreem Arshad	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Aisha Sitwat	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published

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