

Validity and reliability of the Italian version of the Measure Of Parental Style (MOPS)

Validità e affidabilità della versione italiana della Measure Of Parental Style (MOPS)

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Summary

Objective

The links between parenting and mental health are a major topic of research in psychiatry. Research on the correlates of dysfunctional or inadequate parenting relies on the availability of valid and reliable measures of parental style. Our main aim was to develop and validate the Italian version of the Measure Of Parental Style (MOPS). A secondary aim was to test the reliability of an Italian version of the Parental Bonding Instrument (PBI) that was specifically designed for this study.

Methods

An Italian version of the MOPS and PBI was produced using multiple independent bilingual translators. The questionnaires were administered to a non-clinical sample of adults ($N = 154$). A sub-sample ($N = 73$) completed the instruments again one month later.

Introduction

Parenting and its relationships with mental health, personality, and emotion regulation is a major topic of research in several disciplines, including psychiatry and clinical and developmental psychology. For instance, several cross-sectional studies have suggested that relationships during childhood are associated with mental health outcomes in later life including depression, anxiety and self-harm¹⁻³. Longitudinal studies also provided evidence that rejecting attitudes, emotional unavailability, parent-child discord and affectionless control increase the risk of depression, anxiety and suicidality⁴. Additionally, attachment research has focused on the effects of parenting on children's development over time, as attachment is postulated to be a function of the nature and quality of the interactions between parents and children. Research has been particularly concerned with the implications

Results

As expected, MOPS maternal and paternal Indifference were moderately to highly negatively correlated with PBI maternal and paternal Care, respectively. Also, MOPS Overcontrol was moderately to highly correlated with PBI maternal and paternal Overprotection, respectively. Moreover, MOPS maternal and paternal Abuse displayed a moderate negative correlation with PBI maternal and paternal Care, and a small though significant correlation with PBI maternal and paternal Overprotection. Furthermore, the MOPS and the PBI subscales were found to be reliable in terms of internal consistency and absolute as well as relative stability.

Conclusions

Given their satisfactory psychometric properties, the MOPS and PBI hold promise for clinicians and researchers interested in the links between quality of parenting and mental health.

Key words

Attachment • Parenting • Validity • Reliability

for attachment security of the emotional availability and accessibility of parents to their children^{5,6}, and with the links between children's social competence and the quality of parent-child relationships⁷. Furthermore, research on alexithymia has highlighted an association between alexithymia and dysfunctional parenting. Some studies suggested that alexithymia is negatively associated with the degree to which positive feelings are expressed in the family of origin^{8,9}, while other studies reported an association between mothers' perceived low care and alexithymia in adulthood¹⁰.

Research on the correlates of dysfunctional or inadequate parenting relies on the availability of valid and reliable measures of parental style. While direct observation of parent-child interaction provides the best measure of parenting, if the research aim is to investigate the relationship between parental style and individual differences or health outcomes in adulthood, this measure can be used

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only in longitudinal studies, whereas cross-sectional studies have to rely on retrospective measures of parenting, such as detailed interviews or self-report questionnaires. Although interview measures are usually more reliable than self-report questionnaires, they are time consuming and require administration and scoring by trained investigators. As a consequence they are quite expensive and less often feasible with large samples in comparison to self-reports.

A self-report measure that has gained wide acceptance over the last two decades is the Parental Bonding Instrument (PBI), which was introduced in the late 1970s by Parker, Tupling and Brown¹¹ as a measure of perceived parental rearing characteristics that contribute to the quality of the parent-child bond. The instrument probes adult recollections of parental behaviours and attitudes during the subject's childhood, and it yields scores on two dimensions, named "care" and "overprotection". Optimal parenting is considered to result from the combination of high care and low overprotection. Several studies have assessed the psychometric properties of this instrument and suggested satisfactory reliability and validity¹². For instance, in a recent study the maternal care scale of the PBI was found to compare reasonably well as an index of overall neglect in childhood to that provided by a detailed standardized interview, the Childhood Experiences of Care and Abuse (CECA)¹³. In addition, numerous studies have shown that dysfunctional interactive patterns, defined by low care and high over-

protection scores, are related to a variety of psychiatric disorders in adulthood^{14,15}.

Two decades later, a modified version of the PBI, named Measure Of Parental Style (MOPS), which includes a scale assessing parental abuse, was introduced¹⁶. While the PBI has been used in many studies, there has been relatively less research experience with the MOPS, although it can be regarded as a refined form of the PBI. Additionally, whereas several Italian translations of the PBI are available, including validated ones¹⁷, to our knowledge there is no validated Italian version of the MOPS.

This paper describes the development and validation of the Italian version of the MOPS and also reports reliability data for an Italian version of the PBI specifically designed for this study. We assessed the MOPS criterion-related validity against the PBI, and evaluated the reliability of the two instruments in terms of both internal consistency and absolute and relative stability.

Methods

Participants

The study sample was recruited among friends and relatives of a group of students and graduate students attending the Department of Neurology and Psychiatry, Policlinico Umberto I, Sapienza University of Rome, Italy. All participants gave their written informed consent to take part in the study and met the following criteria: 1) age 18-

TABLE I.
Characteristics of participants. *Caratteristiche dei partecipanti.*

	Participants assessed at baseline (N = 154)		Participants assessed on both occasions (N = 73)	
	N (%)	Mean ± SD	N (%)	Mean ± SD
Sex				
Male	50 (32.5)		20 (27.4)	
Female	104 (67.5)		53 (72.6)	
Age		37.7 ± 12.1		39.9 ± 12.1
Marital status				
Unmarried	92 (60.9)		37 (52.1)	
Married	47 (30.5)		28 (39.4)	
Separated/divorced	8 (5.2)		4 (5.6)	
Widowed	4 (2.6)		2 (2.7)	
Missing information	3 (1.9)		2 (2.7)	
Education				
Junior High School	7 (4.5)		3 (4.1)	
Senior High School	81 (52.6)		37 (50.7)	
University Degree or Higher	66 (42.9)		33 (45.2)	

TABLE II.
MOPS and PBI scores by sociodemographic variables. *Punteggi MOPS e PBI in relazione alle variabili demografiche.*

	MOPS						PBI			
	Mother's Indifference	Mother's Abuse	Mother's Overcontrol	Father's Indifference	Father's Abuse	Father's Overcontrol	Mother's Care	Mother's Overprotection	Father's Care	Father's Overprotection
Sex										
Female	1.3 ± 3.0	1.2 ± 2.2	4.3 ± 3.2	1.6 ± 2.5	1.1 ± 1.9	2.7 ± 2.3	25.7 ± 7.8	16.4 ± 8.2	23.8 ± 7.4	15.4 ± 7.9
Male	1.3 ± 2.2	1.1 ± 1.9	3.9 ± 2.4	2.5 ± 3.5	1.4 ± 2.9	2.7 ± 2.1	26.2 ± 6.7	13.7 ± 5.9*	23.0 ± 8.2	11.6 ± 6.8**
Age										
18-39	0.7 ± 1.4	0.7 ± 1.2	3.4 ± 2.6	1.5 ± 2.3	0.9 ± 1.8	2.2 ± 1.9	28.1 ± 5.5	14.0 ± 6.6	24.8 ± 6.9	11.8 ± 6.9
40-65	2.2 ± 4.0***	1.9 ± 2.9***	5.3 ± 3.2***	2.4 ± 3.6	1.7 ± 2.8*	3.5 ± 2.4***	22.4 ± 8.7***	17.7 ± 8.5**	21.3 ± 6.3**	17.9 ± 7.8***
Marital status										
Unmarried	1.1 ± 2.6	0.9 ± 1.8	3.6 ± 2.7	1.9 ± 2.8	1.1 ± 2.2	2.3 ± 2.0	26.8 ± 6.9	14.2 ± 7.2	23.9 ± 7.2	12.6 ± 7.4
Married	1.6 ± 3.2	1.3 ± 2.2	4.8 ± 2.9	1.5 ± 2.5	1.3 ± 2.2	3.4 ± 2.2	25.4 ± 7.6	15.9 ± 6.9	23.4 ± 8.7	16.4 ± 7.3
Separated/divorced/widowed	1.2 ± 2.3	2.5 ± 3.5	6.6 ± 3.8***	2.6 ± 4.2	1.6 ± 3.0	3.9 ± 2.9**	20.2 ± 9.1**	25.1 ± 7.1***	20.3 ± 6.9	20.1 ± 7.7**
Education										
Junior or Senior High School	1.4 ± 3.2	1.4 ± 2.4	4.1 ± 2.8	1.8 ± 2.9	1.2 ± 2.1	2.9 ± 2.3	25.3 ± 7.8	15.9 ± 7.7	23.1 ± 7.7	15.3 ± 8.0
University Degree or Higher	1.3 ± 2.2	1.0 ± 1.7	4.3 ± 3.2	1.9 ± 3.0	1.2 ± 2.5	2.5 ± 2.0	26.7 ± 6.8	15.1 ± 7.6	24.2 ± 7.6	12.7 ± 7.2*

* p < 0.05; ** p < 0.01; *** p < 0.001.

65 years; 2) absence of severe medical or psychiatric illness; 3) absence of cognitive impairment.

A total of 154 participants were enrolled in the study and completed the MOPS and the PBI. Of these, 73 completed the instruments for a second time after about 4 weeks. They did not significantly differ on any sociodemographic variable from the 81 participants who completed the questionnaires only at baseline. The sociodemographic characteristics of participants are summarized in Table I.

Assessment

The PBI is a self-completed questionnaire consisting of 25 items, scored on a 4-point Likert scale indicating the degree of agreement with the item statement. Twelve items refer to empathy and care ("Care") and 13 to excessive control and protection ("Overprotection") that subjects recall to have received from either their mother (maternal form) or father (paternal form) during their first 16 years of life. Therefore, the Care scale measures the degree to which the parent was empathic and caring or cold and indifferent, while the Overprotection scale measures the extent to which the parent was intrusive and infantilizing or, in contrast, fostered independence in the subject.

The MOPS comprises two refined PBI scales assessing parental indifference and overcontrol, as well as a third scale assessing parental abuse. It consists of 30 statements, scored on a 4-point Likert scale that indicates the degree of the subject's agreement with the item statement. The items refer to parental "Indifference", "Overprotection", and "Abuse" that subjects recall having received from either mother (maternal form) or father (paternal form) during their first 16 years of life. Higher scores indicate less care and more indifference, more overprotection, and more abuse, respectively.

To obtain a valid Italian version of the instrument, we followed commonly accepted steps in the cross-cultural adaptation of psychosocial measures¹⁸. We concentrated our efforts on producing a good translation and abstained from performing iterative back-translation as several authors¹⁹ have argued persuasively against back-translation for both theoretical and practical reasons, characterizing it as a sub-optimal procedure for checking translations which merely achieves linguistic and conceptual equivalence without paying attention to clarity and understandability, and without taking due account of context and milieu²⁰. An initial translation was produced by the first author and then reviewed independently by two other translators, both fluent in English, who then proposed their own version. Next, each translator independently reviewed the other two versions and provided comments and suggestions. Each translator included those suggestions deemed to be relevant in a second version. This process was repeated one more time, until consensus was reached. The clarity and the acceptability of the resulting version were tested in a pilot administration until a final Italian version of the MOPS was produced. The Italian version of the PBI used in this study was produced following the same steps.

Statistical analysis

All analyses were performed with SPSS for Windows, version 17.0. All statistical tests were two-tailed, with alpha set at 0.05.

A descriptive analysis was used to study the frequency distribution of all variables of interest. Differences in MOPS scores between sociodemographic subgroups were tested with analysis of variance. Then, we determined the reliability of the MOPS and the PBI in terms of internal consistency, absolute stability (i.e., the extent to which the scores remain the same across time or situations), and relative stability (i.e., the degree to which the relative differences in scores among individuals re-

main the same over time). The internal consistency of the MOPS and PBI scales was expressed by means of coefficient alpha. To assess absolute stability, the magnitude of the differences between scores on the MOPS and PBI at baseline and follow-up was determined by calculating Cohen's *d* effect size for within-subjects comparisons, taking into account the dependence between means. To examine the relative stability of MOPS and PBI scores, the intraclass correlation coefficient (ICC) between the scores on the first administration and those on the second administration was computed.

Results

MOPS and PBI scores by sociodemographic variables are summarized in Table II. Mean MOPS subscale scores did not differ by gender and education, while they were higher, except for Father's Indifference, in the age group of 40-64 as compared with the younger age group. A couple of subscale scores were also higher in separated/divorced/widowed participants; this finding, too, is likely to ascribe to the influence of age. A similar profile of findings was observed for PBI subscales. Additionally, PBI Overprotection was found to be higher in females (from both the mother and father) and in participants with lower education (only from the father).

Table III summarizes the correlations between MOPS and PBI subscale scores. As expected, MOPS maternal and paternal Indifference were moderately to highly negatively correlated with PBI maternal and paternal Care, respectively ($p < 0.001$). Moreover, MOPS Overcontrol was moderately to highly correlated with PBI maternal and paternal Overprotection, respectively ($p < 0.001$). Moreover, MOPS maternal and paternal Abuse displayed a moderate negative correlation with PBI maternal and paternal Care, and a small though significant correlation with PBI maternal and paternal Overprotection.

Both the MOPS and the PBI subscales were found to

TABLE III.

Correlations between MOPS and PBI scores. *Correlazioni tra i punteggi MOPS e PBI.*

	Mother's Care	Mother's Overprotection	Father's Care	Father's Overprotection
Mother's Indifference	-0.59***	-0.01		
Mother's Abuse	-0.50***	0.30***		
Mother's Overcontrol	-0.53***	0.68***		
Father's Indifference			-0.62***	0.09
Father's Abuse			-0.50***	0.31***
Father's Overcontrol			-0.36***	0.62***

*** $p < 0.001$.

TABLE IV.
Reliability of MOPS and PBI subscales. Affidabilità delle sottoscale MOPS e PBI.

	MOPS						PBI			
	Mother's Indifference	Mother's Abuse	Mother's Overcontrol	Father's Indifference	Father's Abuse	Father's Overcontrol	Mother's Care	Mother's Overprotection	Father's Care	Father's Overprotection
Internal consistency (N = 154)	0.87	0.73	0.76	0.83	0.78	0.59	0.75	0.84	0.83	0.88
Relative stability (N = 73)	0.95*** (0.91 – 0.97)	0.95*** (0.92 – 0.97)	0.90*** (0.85 – 0.94)	0.93*** (0.88 – 0.95)	0.92*** (0.87 – 0.95)	0.87*** (0.80 – 0.92)	0.90*** (0.84 – 0.94)	0.88*** (0.82 – 0.92)	0.93*** (0.84 – 0.96)	0.90*** (0.85 – 0.94)
Absolute stability (N = 73)	1.5 (2.9)	1.2 (2.2)	4.0 (2.9)	2.2 (3.4)	1.5 (2.7)	2.9 (2.5)	25.0 (7.5)	15.9 (8.0)	23.3 (8.5)	15.0 (8.6)
	1.2 (2.6)	1.1 (2.1)	3.7 (2.8)	2.0 (3.4)	1.3 (2.6)	2.9 (2.6)	25.8 (7.9)	16.2 (8.7)	23.2 (8.8)	14.5 (8.9)
	0.34	0.15	0.25	0.16	0.19	0.01	0.23	0.08	0.03	0.13

CI = Confidence Intervals; *** p < .001.

be reliable in terms of internal consistency and stability (Tab. IV). The ICC between scores on the first and second administration was very high for all MOPS and PBI subscales, which attests to a high level of relative stability. In addition, the changes in MOPS and PBI subscale scores over time were slight, with effect sizes ranging from trivial to small, which indicates a good level of absolute stability.

Discussion

This study supports the validity and the reliability of the Italian version of the MOPS and also provided evidence of the absolute and relative stability of the Italian version of the PBI used in this study.

The moderate to high correlations observed between the MOPS “Overcontrol” and “Indifference” subscales and the PBI “Overprotection” and “Care” subscales, respectively, corroborate the criterion-related validity of the MOPS, that was designed as a refined version of the PBI that also includes a subscale covering parental abuse.

Furthermore, the study findings support the reliability of the MOPS and the PBI. Firstly, all subscales displayed good temporal stability, as only small changes in scores were observed over a 4-week period. The relative stability of subscales was also satisfactory, as the correlation between scores on the first and second administration was very high for all MOPS and PBI subscales. Moreover, the internal consistency of all MOPS and PBI subscales met the recommended standard ($\alpha \geq 0.70$)²¹ for all subscales, except for MOPS Paternal Overcontrol.

Some limitations of this study should be acknowledged. First, to increase the study feasibility, only a subsample of participants were involved in the follow-up assessment. Nevertheless, the statistical power of the longitudinal analyses was adequate. Also, the participants were recruited in the community and had average to high education. Therefore, caution should be applied in generalizing our results to clinical populations and individuals with lower education.

The quality of relationships in the home is related to emotional and social development in childhood²². The availability of valid and reliable instruments to assess the quality of these relationships is important, as such relationships are amenable to intervention and could represent a key area for intervention in the promotion of mental health and the prevention of psychiatric morbidity. The satisfactory psychometric properties exhibited by the Italian version of the MOPS suggest that this assessment instrument, together with the PBI, can be profitably used by clinicians and researchers interested in the links between quality of parenting and mental health. Potential areas of use include a wide variety of research topics that fall within the scope of developmental psychopathology

such as further elucidation of risk and protective factors for child abuse and neglect at the individual, family, and social domains²³, and further inquiry into the association between abusive parenting and a wide range of negative outcomes in adulthood²⁴⁻²⁷, including low educational attainment, being a victim of interpersonal violence, health-compromising behaviours, and a number of physical and mental health problems.

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