





# Introducing a short-form Parental Attachment Questionnaire for Muslim Societies (PAQ-MS): a study among young adults in Pakistan

Nafees Akhtar <sup>a,b,c</sup>, Leslie J. Francis <sup>d,e</sup>, Ursula McKenna <sup>e</sup> and Syeda Salma Hasan <sup>b</sup>

<sup>a</sup>Centre for Education Studies, University of Warwick, Coventry, UK; <sup>b</sup>Department of Psychology, Government College University Lahore, Lahore, Pakistan; <sup>c</sup>Department of Applied Psychology, Islamia University Bahawalpur, Bahawalnagar, Pakistan; <sup>d</sup>Centre for Educational Development, Appraisal and Research (CEDAR), University of Warwick, Coventry, UK; <sup>e</sup>World Religions and Education Research Unit, Bishop Grosseteste University, Lincoln, UK

## ABSTRACT

This paper examines the psychometric properties of Kenny's 55-item Parental Attachment Questionnaire (PAQ), formatted for online administration, among a sample of 370 young adults between the ages of 18 and 26 who were born in the Punjab and had lived there since their birth, and tested the hypothesis that the negatively-voiced items would detract from the unidimensionality of the scales. The data identified the problematic nature within Muslim societies of many (but not all) of the negatively-voiced items concerning parents. The proposed 30-item short-form Parental Attachment Questionnaire for Muslim Societies (PAQ-MS), containing fewer negatively-voiced items, reported good qualities of internal consistency reliability and construct validity across the three domains of Affective Quality of Relationship with Mother/Father, Mother/Father as Facilitators of Independence, and Mother/Father as Source of Support.

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## Introduction

### *Psychological assessment within Muslim societies*

A series of recent studies shaped within the empirical psychology of religion that have applied Western measures within predominantly Muslim societies has recognised problems caused by negatively-voiced items. For example, Musharraf et al. (2014) set out to provide an Urdu translation of the Sahin-Francis Scale of Attitude toward Islam (Sahin & Francis, 2002). At translation stage the negatively-voiced items were identified as culturally offensive (for example, I find it hard to believe in Allah/God). The high internal consistency of this instrument after revoicing the negative items with a positive valency was affirmed by Musharraf and Lewis (2016) in Pakistan, and by Francis et al. (2016) in

**CONTACT** Leslie J. Francis  leslie.francis@warwick.ac.uk

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Malaysia. Erken and Francis (2021) reported on the internal consistency reliability and construct validity of the Astley-Francis Scale of Attitude toward Theistic Faith (Astley et al., 2012) among Muslim, Christian and religiously unaffiliated secondary school students in England. They found that the two negatively-voiced items within this scale performed particularly badly within schools in which there was a high concentration of Muslim students. Culturally, the importance of respect for Allah teaches against such negative expressions. This culture of respect, however, goes beyond the deity and may impact the respect in which those in authority are held, including parents. There is reason to hypothesise, therefore, that the negatively-voiced items within the PAQ may also cause problems.

It is against this background that the first aim of the present study was to test within a Muslim society the performance of negatively-voiced items within the Parental Attachment Questionnaire (PAQ) designed by Kenny (1987, 1990). Although this instrument has been applied in Muslim societies (see, Imtiaz & Naqvi, 2012; Sharafat & Zubair, 2013) attention has not been given to this specific issue. Should the negatively-voiced items prove problematic in the present study, the second aim was to propose a short revised version of the PAQ designed for use in Muslim societies with fewer negatively-voiced items. First, however, the context for this study is set by an examination of Kenny's conceptualisation and operationalisation of parental attachment.

### ***Kenny's conceptualisation and operationalisation of parental attachment***

Attachment theory has its origins in the work of Mary Ainsworth and John Bowlby (see Ainsworth et al., 1978; Ainsworth & Bowlby, 1965; Bowlby, 1969, 1973, 1980; Bretherton, 1992). Central to attachment theory are two theses: that positive and negative patterns of attachment with primary caregivers developed in infancy are relatively stable across the lifespan; and that variations in attachment patterns can explain individual differences in positive and negative life trajectories. These theses have given rise to wide ranging programmes of research designed to test the correlates of individual differences in attachment, including studies that focus on: achievement motivation (Bal & Barušs, 2011), aggression and externalising behaviours (Fearon et al., 2010), college adjustment (Hinderlie & Kenny, 2002), depressive symptoms (Kenny & Sirin, 2006), eating disorders (Jewell et al., 2016), internalising disorders (Groh et al., 2012), psychological distress (Kenny et al., 2002), self-image (Kenny et al., 2005), and suicidal behaviour (Fergusson et al., 2000). The success of empirical studies designed to assess the correlates of individual differences in attachment depends on the quality of the instruments constructed to assess attachment. Kenny's PAQ has played a central role in developing and testing attachment theory.

The development of Kenny's PAQ was reported in two papers. In the first paper, Kenny (1987) establishes her research agenda concerned with extending attachment theory from childhood to adolescence and young adulthood, with special reference to the formative transitional years of college education. For Kenny, testing the relevance of this extension of attachment theory required the development of a reliable and valid measure of parental attachment established among this age group. In this initial study, working on the theoretical model of attachment advanced by Ainsworth et al. (1978) that distinguishes among the three components of the enduring affective bond, secure

base for emotional support, and fostering autonomy, Kenny (1987) tested 70 items among a sample of 173 (100 female and 73 male) first-year residential college students at the University of Pennsylvania.

Learning from this first study, in the second paper, Kenny (1990) proposed the 55-item PAQ. These items were selected to assess nine *aspects* of parental attachment defined as: perceived parental availability (four items), understanding (four items), acceptance (four items), respect for individuality (six items), facilitation of independence (nine items), interest in interaction with parents (seven items), affect toward parents during visits (nine items), student help-seeking behaviour in situations of stress (seven items), and satisfaction with help obtained from parents (five items). These items were tested among a sample of 159 (102 female and 57 male) college students in their senior year at a large coeducational, academically selective urban university. Employing a five-point Likert scale (1 = not at all to 5 = very much) participants were asked to rate their relationship with their parents jointly. From these 55 items covering nine *aspects* of parental attachment, Kenny (1990) identified three sets of items that mapped onto the theoretical three *component* model of attachment proposed by Ainsworth et al. (1978): enduring affective bond (reflecting the quality of parental relationships), secure base for emotional support (reflecting the parental supporting role), and fostering autonomy (reflecting parental respect). Construct validity was supported against scores recorded on the sub-scales of the Moos Family Environment Scale (Moos, 1985), the two scales of the Dating and Assertion Questionnaire (Levenson & Gottman, 1978), and the career planning scale of the Career Development Inventory (Super et al., 1981). Internal consistency reliability, in terms of alpha (Cronbach, 1951), reported the following data for the three scales: quality of parental relationships,  $\alpha = .96$ ; parental role in providing emotional support,  $\alpha = .88$ ; parental role in fostering autonomy,  $\alpha = .88$ .

Reporting on sex differences in the second study, Kenny (1990) found no sex differences in terms of quality of parental relationships or in terms of parental role in fostering autonomy. However, females recorded significantly higher scores in terms of parental role in providing emotional support. In a third study conducted among a sample of 226 (173 female and 53 male) first-year college students at a private, urban, coeducational Jesuit university in north-east USA, Kenny and Donaldson (1991) reported sex differences across all three factors, with females recording higher scores on quality of parental relationships, parental role in providing emotional support, and parental role in fostering autonomy. More recently, neither Maxwell and Huprich (2014) in a sample of 599 (458 female and 141 male) students, nor Bishop et al. (2019) in a sample of 288 (179 female and 109 male) students, reported significant sex differences on any of the three scales.

Kenny reported high levels of internal consistency reliability for all three subscales and similar results have been reported by others. For example, Robinson et al. (2011), among a sample of 209 (128 female and 81 male) adults ranging in age from 18 to 59 years, reported the following data: quality of parental relationships,  $\alpha = .95$ ; parental role in providing emotional support,  $\alpha = .86$ ; parental role in fostering autonomy,  $\alpha = .87$ . On the other hand, some users of the PAQ reported a somewhat different outcome. For example, Bal and Barušs (2011) among a sample of 50 undergraduates reported the following data: quality of parental relationships,  $\alpha = .96$ ; parental role in providing emotional support,  $\alpha = .77$ ; parental role in fostering autonomy,  $\alpha = .86$ . Kalsner and Pistole (2003)

among a sample of 252 undergraduates reported the following data: quality of parental relationships,  $\alpha = .89$ ; parental role in providing emotional support,  $\alpha = .61$ ; parental role in fostering autonomy,  $\alpha = .82$ .

While Kenny initially prioritised the three subscales derived from the 55-item PAQ, in subsequent studies Kenny preferred to employ a total scale scores (see Hinderlie & Kenny, 2002). Other users of this instrument have also preferred to work with a single cumulative score (see, for example, Hannum & Dvorak, 2004; Holmbeck & Wandrei, 1993).

While Kenny originally prioritised employing a single rating for parental attachment, considering mother and father together, Kenny et al. (1998) employed separate ratings for mothers and fathers among a sample of 253 ninth graders in high school in the USA. In this study they reported the following data: quality of maternal relationships,  $\alpha = .93$  for girls and  $\alpha = .88$  for boys; quality of paternal relationships,  $\alpha = .92$  for girls and  $\alpha = .93$  for boys; maternal role in fostering autonomy,  $\alpha = .78$  for girls and  $\alpha = .83$  for boys; paternal role in fostering autonomy,  $\alpha = .79$  for girls and  $\alpha = .84$  for boys. This study did not report on the parental provision of emotional support. Some other users of the PAQ also preferred to treat mothers and fathers separately. For example, Hannum and Dvorak (2004), using a single cumulative score derived from the three subscales among a sample of 95 first-year college students, reported a correlation of .39 between maternal ratings and paternal ratings. Also using a cumulative scale score, Hinderlie and Kenny (2002), drawing on data from 186 (100 female and 86 male) Black college students, reported a correlation of .52 between maternal ratings and paternal ratings. Employing two of the three scales, Kenny and Gallagher (2002), drawing on data from 172 (97 female and 75 male) students from grades 10 and 12, reported the following correlations between paternal and maternal ratings: quality of relationships,  $r = .65$ ; fostering autonomy,  $r = .52$ .

In another variant of the PAQ, Kenny and Perez (1996) invited participants to make one rating for the family member toward whom they were most likely to turn for support. Drawing on a sample of 172 first-year students at a predominantly white North-Western university, they reported that 61% referenced mother, 12% father, and 27% other family members such as siblings, grandparents, aunts, and cousins. The following internal reliability data were reported for the three scales: quality of relationships,  $\alpha = .88$ ; role in providing emotional support,  $\alpha = .75$ ; role in fostering autonomy,  $\alpha = .79$ .

### **Research problems**

Against this background the present study was designed to address two main research problems. The first research problem concerned assessing the performance of the negatively-voiced items within Muslim societies. Should some of these items prove to be problematic, the second research problem concerned developing a short form of the PAQ appropriate for use within Muslim societies with the problematic negatively-voiced items removed.

In order to work with a homogeneous group of participants, the survey sought responses from individuals who met the following criteria: young adults between the ages of 18 and 26 who were born in Punjab, had lived there since their birth, were unmarried, and had living biological parents.

## Method

### Procedure

The PAQ was formatted for inclusion within the online survey *Parental Attachment and Life* designed for completion by young adults between the ages of 18 and 26 who were born in Punjab and had lived there since their birth. Participants were assured of confidentiality. The project was approved by the Research Ethics Committee of the Advanced Studies Research Board GC University Lahore.

### Instruments

The 55 items of the PAQ (Kenny, 1987) were formatted to fit an online platform. Each of the 55 items was presented twice, once for mother and once for father. Each item was followed by a response button offering the following rating scale: not at all (1), somewhat (2), a moderate amount (3), quite a bit (4), and very much (5). The 25 negatively-voiced items were reverse coded for the analyses. The 55 items were presented within five sets of items, headed: General (items 1–27); During time spent together (items 28–41); Following time spent together (items 42–43); When I have a serious problem or an important decision to make (items 44–50); When I go for help (items 51–55).

The *Parental Attachment and Life* survey also included an instrument designed to assess the perceived influence of various agents, including parents, on shaping moral values, personality, and psychological wellbeing. The perceived influence of each agent on each of the three outcomes (moral values, personality, and psychological wellbeing) was rated on an 11-point semantic space from very low (0) to very high (10).

### Participants

The *Parental Attachment and Life* survey was fully completed by 370 participants who met the profile of young adults between the ages of 18 and 26 who were born in Punjab, had lived there since their birth, were unmarried, and had living biological parents. The participants comprised 151 males, 217 females, and 2 who preferred not to say: 45 were aged 18 or 19, 131 were aged 20 or 21, 116 were aged 22 or 23, 65 were aged 24, 25, or 26, and 13 preferred not to say.

### Analysis

The data were analysed by SPSS using the frequency, correlation, factor, and reliability routines.

## Results and discussion

The first step in data analysis employed exploratory factor analysis (EFA), first on the 55 items concerning mother and then on the 55 items concerning father. On the items concerning mother, principal components analysis proposed 10 factors explaining 61.3% of the variance, with the first factor explaining 25.4% of the variance and the second factor explaining 14.6%. In the unrotated solution, 23 of the 25 negatively-voiced items

loaded on factor two, with loadings ranging from .41 to .67. On the items concerning father, principal components analysis proposed nine factors explaining 58.9% of the variance, with the first factor explaining 26.1% of the variance and the second factor explaining 14.6%. In the unrotated solution, the same 23 of the 25 negatively-voiced items loaded on factor two with loadings varying from .42 to .68. This EFA clarifies the expectation that closer examination of the three scales proposed by the PAQ may identify problems with the negatively-voiced items.

The second step in data analysis employed the alpha coefficient (Cronbach, 1951) and the correlations between individual items and the sum of the other items within the proposed scales, in order to identify the best three sets of items to measure the constructs originally proposed by the PAQ. Table 1 presents the scale properties for the original three scales, with 27, 14, and 12 items respectively (two of the 55 items in the PAQ were not included in these original scales). In the original scales it is the presence of items that recorded low (or even negative) correlations with the sum of the other items that were systematically removed to enhance the homogeneity of the items. Table 1 also presents the scale properties for the three short scales, with 15, seven, and eight items that emerged from this process of item reduction. These short scales comprised seven of the original 25 negatively-voiced items (28%) and 23 of the original 30 positively voiced items (77%). The surviving negatively-voiced items are all within the scale of affective quality. They are items descriptive of behaviour or feeling, rather than items that propose criticism or reveal disrespect.

In terms of the measurement of Affective Quality of Relationship with parents the following negatively-voiced items were dropped from the revised scale. My parents:

- have no idea what I am feeling or thinking
- are too busy or otherwise involved to help me
- are persons whose expectations I feel obliged to meet
- with whom I argued
- towards whom I felt cool and distant
- who got on my nerves
- I avoided telling about my experiences
- when I go to my parents for help I continue to feel unsure of myself

**Table 1.** Scale properties comparing different versions of the PAQ.

	N items	$\alpha$	Item rest correlations	
			Lowest	Highest
Affective quality: Mother	27	.88	.12	.62
	15	.88	.45	.63
Affective quality: Father	27	.88	.13	.63
	15	.88	.47	.69
Independence: Mother	14	.56	-.18	.40
	7	.87	.59	.68
Independence: Father	14	.55	-.19	.41
	7	.86	.53	.69
Support: Mother	12	.77	.05	.66
	8	.86	.52	.70
Support: Father	12	.78	-.04	.67
	8	.87	.47	.72

- I feel that I would have obtained more understanding from a friend

In terms of the measurement of parents as Facilitators of Independence the following negatively-voiced items were dropped from the revised scale. My parents:

- restrict my freedom or independence
- are critical of what I can do
- impose their ideas and values on me
- try to control my life
- give me advice whether or not I want it
- do things for me which I could do for myself
- treat me like a younger child

In terms of the measurement of parents as Source of Support the following negatively-voiced items were dropped from the revised scale: My parents:

- live in a different world
- I contact my family if I am not able to resolve the situation after talking it over with my friends

Tables 2 and 3 present the 15 items comprising the Parental Attachment Questionnaire – for Muslim Societies Scale of Affective Quality of Relationships: with Mother or Father respectively, in terms of the correlations between the individual items and the sum of the other 14 items, and in terms of the proportion of the participants who rated each item 5 (very much) on the five-point scale. Overall, these data show high endorsement for the positive items and very low endorsement for the negative items in evaluating both mother and father. For example, 75% endorsed very much that they felt feelings of love for their mother, 58% endorsed very much that they looked forward to seeing their mother, and 52% endorsed very much that their mother understands their problems and concerns. Similarly high proportions felt feelings of love for their father (71%), looked forward to seeing their father

**Table 2.** PAQ-MS: Affective Quality of Relationship with Mother.

	<i>r</i>	Very much %
My mother is someone I can count on to listen to me when I feel upset	.51	49
My mother supports my goals and interests	.51	60
My mother understands my problems and concerns	.58	52
My mother ignores what I have to say *	.52	11
My mother is disappointed in me *	.55	9
I looked forward to seeing my mother	.45	58
I felt comfortable with my mother	.63	69
My mother made me angry *	.55	9
I wanted to be with my mother all the time	.51	53
My mother made me feel guilty and anxious *	.54	11
I felt feelings of love for my mother	.48	75
I tried to ignore my mother *	.58	6
I liked being with my mother	.61	60
Feeling let down and disappointed by my mother *	.52	8
I am disappointed with my mother's response *	.57	9

Note: \* these items are reverse coded.

**Table 3.** PAQ-MS: Affective Quality of Relationship with Father.

	<i>r</i>	Very much %
My father is someone I can count on to listen to me when I feel upset	.47	32
My father supports my goals and interests	.57	62
My father understands my problems and concerns	.59	45
My father ignores what I have to say *	.51	9
My father is disappointed in me *	.52	10
I looked forward to seeing my father	.52	55
I felt comfortable with my father	.69	57
My father made me angry *	.54	9
I wanted to be with my father all the time	.55	48
My father made me feel guilty and anxious *	.50	10
I felt feelings of love for my father	.56	71
I tried to ignore my father *	.52	6
I liked being with my father	.61	56
Feeling let down and disappointed by my father *	.48	9
I am disappointed with my father's response *	.58	10

Note: \* these items are reverse coded.

**Table 4.** PAQ-MS: Mother as Facilitators of Independence.

	<i>r</i>	Very much %
My mother respects my privacy	.64	41
My mother takes me seriously	.64	50
My mother likes me to make my own decisions	.66	34
My mother is someone I can talk to about anything	.65	38
My mother lets me try new things out and learn on my own	.67	32
My mother has trust and confidence in me	.64	60
My mother respects my decisions, even if she does not agree	.59	23

(55%), and considered that their father understands their problems and concerns (45%). Only small proportions rated very much that their mother (9%) or father (10%) is disappointed in them, or that their mother (9%) or father (9%) made them angry.

Tables 4 and 5 present the seven items comprising the PAQ-MS Scale of Mother or Father as Facilitators of Independence, in terms of the correlations between the individual items and the sum of the other six items, and in terms of the proportion of the participants who rated each item 5 (very much) on the five-point scale. Overall, these data show that over half of the participants rated very much the notion that their mother (60%) and father (59%) has trust and confidence in them. Around a third of the participants rated very much the notion that their mother (34%) or father (35%) likes them to make their own decisions.

**Table 5.** PAQ-MS: Father as Facilitators of Independence.

	<i>r</i>	Very much %
My father respects my privacy	.63	46
My father takes me seriously	.63	47
My father likes me to make my own decisions	.69	35
My father is someone I can talk to about anything	.65	24
My father lets me try new things out and learn on my own	.68	36
My father has trust and confidence in me	.65	59
My father respects my decisions, even if she does not agree	.53	23



**Table 6.** PAQ-MS: Mother as Source of Support.

	<i>r</i>	Very much %
My mother gives me advice when I ask for it	.59	59
My mother gives me attention when I want it	.65	50
My mother protects me from danger and difficulty	.52	66
I told my most personal thoughts and feelings to my mother	.56	31
I look to my mother for help	.70	48
I know that my mother will know what I should do	.67	43
I ask my mother for help if my friends can't help	.63	37
I feel sure that things will work out as long as I follow my mother's advice	.52	39

**Table 7.** PAQ-MS: Father as Source of Support.

	<i>r</i>	Very much %
My father gives me advice when I ask for it	.62	56
My father gives me attention when I want it	.70	44
My father protects me from danger and difficulty	.55	66
I told my most personal thoughts and feelings to my father	.47	19
I look to my father for help	.71	48
I know that my father will know what I should do	.72	36
I ask my father for help if my friends can't help	.66	35
I feel sure that things will work out as long as I follow my father's advice	.55	38

Tables 6 and 7 present the eight items comprising the PAQ-MS Scale of Mother or Father as Source of Support, in terms of the correlations between the individual items and the sum of the other seven items, and in terms of the proportion of the participants who rated each item 5 (very much) on the five-point scale. Overall, these data show that half of the participants rated very much the notion that they look to their mother (48%) or to father (48%) for help. Two thirds of the participants rated very much the notion that their mother (66%) or father (66%) protects them from danger and difficulty.

The third step in data analysis explored the construct validity of the six scales proposed by the PAQ-MS in light of the theory that high parental attachment is associated with parental influence on moral values, personality, and psychological wellbeing. Table 8 presents the bivariate correlations between each of the six scales and the participants self-assessment of parental influence on shaping their moral values, shaping their personality, and shaping their psychological wellbeing. These data demonstrate significant positive correlations between each of the six scales and each of the outcome measures, offering support for the construct validity of the new measure.

**Table 8.** Testing construct reliability.

	Values <i>r</i>	Personality <i>r</i>	Wellbeing <i>r</i>
Quality of relationship with mother	.23***	.23***	.32***
Quality of relationship with father	.22***	.20***	.32***
Mother as facilitator of independence	.16***	.21***	.33***
Father as facilitator of independence	.20***	.22***	.32***
Mother as source of support	.17***	.21***	.30***
Father as source of support	.20***	.20***	.32***

Note: \*\*\**p* < .001.

**Table 9.** Mean scale scores on the PAQ-MS by sex.

	Male		Female		<i>t</i>
	Mean	SD	Mean	SD	
Affect Quality: Mother	61.5	11.0	61.6	11.5	.1
Affect Quality: Father	59.6	11.9	60.2	12.0	.5
Independence: Mother	26.8	6.8	25.2	6.8	2.2*
Independence: Father	26.1	7.0	24.5	7.0	2.2*
Support: Mother	31.2	7.3	30.6	7.5	.7
Support: Father	30.6	7.5	28.6	7.8	2.4*

Note: males,  $n = 151$ ; females,  $n = 217$ . \* $p < .05$ .

Table 9 presents the mean scale scores for male and female participants in respect of each of the six scales proposed by the PAQ-MS. These data show that there are only small differences in the mean scores recorded by females and by males. Females reported significant lower scores than males on three scales: Mother as Facilitator of Independence, Father as Facilitator of Independence, and Father as Source of Support.

## Conclusion

The paper set out to examine the psychometric properties of Kenny's 55-item PAQ within a Muslim society and did so by means of a survey completed by 370 young adults between the ages of 18 and 26 years who were born in the Punjab and had lived there since their birth. The examination involved two steps, each of which leads to a conclusion relevant for informing future research.

The first step involved testing the suggestion that some of the negatively-voiced items concerning the evaluation of parents may be problematic within predominantly Muslim societies. This theory was tested by two methods. First, exploratory factor analysis identified a strong second factor, proposed by unrotated principal component analysis, that identified 23 of the 25 negatively-voiced items within the instrument. Second, reliability analyses identified that only 7 of the negatively-voiced items worked satisfactorily within the three proposed scales (Affective Quality of Relationship, Facilitators of Independence, and Source of Support). The negatively-voiced items that were retained were of a descriptive rather than evaluative nature. This finding confirms that it is wise to check the psychometric properties of instruments developed in Western post-Christian contexts before applying them in predominantly Muslim societies.

The second step involved developing a short-form PAQ-MS. Drawing on the original 55 items, three measures were proposed (each in two forms, one for mother and one for father): 15-item Scale of Affective Quality of Relationship, seven-item Scale of Facilitators of Independence, and eight-item Scale of Source of Support. All six measures achieved good properties of internal consistency reliability (with alpha coefficients ranging between .86 and .88) and good properties of construct validity against the self-assessed influence of parents on shaping the participants moral values, personality, and psychological wellbeing. These 30 items can be commended for further use.

As an initial exploratory study, there are clear limitations imposed on the generalisability of the findings, restricted to a sample of young adults between the ages of 18 and 26 who were born in Punjab, had lived there since their birth, were unmarried, and had living

biological parents. As an initial exploratory study, it is acknowledged that further work is now required to validate the unidimensionality of the three scales by means of confirmatory factor analysis among a different sample of participants gathered from within a predominantly Muslim society.

A further conceptual problem is also raised by the total removal of the negatively-voiced items from two of the components assessed by the PAQ. The negatively-voiced items were removed because they damaged the internal consistency reliability and homogeneity of the scales. What is not known at this stage, however, is the extent to which the removal of these negatively-voiced items may have changed in some ways the underlying construct being assessed by the original instrument. This conceptual problem could be addressed by scoring the PAQ used in a non-Muslim society in both the original way and in the revised way and then by comparing the performance of these two different approaches in addressing the same set of research questions.

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No potential conflict of interest was reported by the author(s).

## ORCID

Nafees Akhtar  <http://orcid.org/0000-0002-7604-9412>

Leslie J. Francis  <http://orcid.org/0000-0003-2946-9980>

Ursula McKenna  <http://orcid.org/0000-0002-2625-7731>

Syeda Salma Hasan  <http://orcid.org/0000-0002-6811-0068>

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