

**The Islamic Religious Observance Scale; development, psychometric properties and associations with demographic factors in a Sudanese sample**

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**Abstract**

This study reports the development and a preliminary analysis of the psychometric properties of the Islamic Religious Observance Scale “IROS”. The IROS measures the concept of religiosity from an Islamic perspective. One hundred Sudanese Muslim adults completed the Islamic Religious Observance Scale. The IROS was found to have satisfactory test-retest reliability, good internal consistency and good construct validity. The author believes that the IROS might have utility for screening and research purposes, not only as an assessment and outcome measure but also for testing hypotheses about connections between religion and mental health in the Sudan and other Islamic countries.

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## Introduction

Over the past twenty years or so there has been an increasing interest into the impact of sociocultural issues when investigating human psychological functioning (Wertsch & Youniss, 1987). Exploration of the belief systems of a society or a culture is especially significant in understanding how families set up the sociocultural environment within which children develop (Stratton, 1988; Badri, 1979). Task of socialization, transmission of rules, roles and norms of a given culture are typically the responsibility of the family (Vetere & Gale, 1987; Ahmad, 1976). Moreover, many authors (Wertsch & Youniss, 1987; Liddell, Kvalsvig, Shababala & Masilela, 1991; Triandis & Brislin, 1984; Badri, 1997) have indicated that it is important to examine the social, political, and historical forces of culture when trying to understand human behaviour.

Religious values exert a pervasive influence in many cultures shaping human experience, beliefs and values. Koenig, Cohen & Blazer (1992) concluded that religious behaviour such as prayer, reading religious literature, and expression of trust or faith in God buffer younger and older individuals against the stress of hospitalization and illness. Nobles & Sciarra (2000) highlighted the importance of considering religion as a vital source for emotional well-being and psychological health for the Arabs who live in America with Islam providing a basis for successful psychotherapy in the treatment of their psychological problems.

The protective role of religion in the face of difficult environments or events has been established within other communities (Kark, Carmel, Sinnreich, Goldberger & Friedlander, 1996). Studies on the effects of religion on Black American communities demonstrated that religion offers specific systems of values, beliefs and practices that enhance self-development, foster self-esteem and promote leadership skills (Brown & Gary, 1991). In this connection, factors such as alienation, social insecurity, violence, harmful group pressure, broken families, alcohol abuse and crime in parents, which were believed to be allied to children's negative outcomes and behavioural deviance, were found to be relatively rare in religious communities and families (Badri, 1997; Badri, 1979; Abdelrahim & Cederblad, 1984). It was also suggested that religion might be a source

of strength and vitality for marital relationship (Badri, 1979; Shrum, 1980; Filsinger & Wilson, 1984; Al-Atass, 1996).

It could be argued that religion in the Islamic world has a special significance. Islam has been described as more than a religion; as a complete and comprehensive way of living. Its ideas and practices not only influence the individual's spiritual life but also his cognitive, emotional, social and economic activities (Al-Attas, 1980; Badri, 1976; Braima, 1990). At the social level, Islam encourages filial piety, social interaction and social cohesion. Religion serves as an element of psychological stability in the family and society at large. Ahmad (1976) outlined the role of Islam as it helps the individual promote both his personal and social competencies while enhancing parental responsibility and parenting efficacy. The concept of family is central to this. In Islam the family is regarded as a religious and social institution where socialisation remains a major responsibility (Ahmad, 1976). Procreation and some specific child-rearing practices have been motivated by religious commands and examples (Badri, 1979; Atabani, 1985). In fact, Islamic teaching promotes the view that procreation of children is a blessing.

Smaller families in Pakistan were found to be consistently associated with modern attitudes and behaviours towards family and religious values and obligations (Zafar, Ford & Ankomah, 1995). Early marriage and preference for larger families among women in Indonesia, Egypt and Jordan is associated with traditional religious values (Heaton, 1996). In the Sudan, Al-Awad & Sonuga-Barke (1992) found that more religious parents had more children. They also indicated that Sudanese children living in traditional extended families demonstrated better psychological adjustment than their counterparts who were brought up in nuclear families. They concluded that religion had a major influence on the norms that govern parenting in the Sudanese society. In this connection, Atabani (1985) interviewed Sudanese mothers about sources of child-rearing practices and reported that, mothers who preferred breast-feeding and late weaning mentioned that they had been influenced by Qur'an. In a more recent study Al-Awad (1997) demonstrated that parents' religiosity predicts the number of children in the family i.e. (family

size), and grandmother's involvement in child-care (one indicator of extended family arrangement). Other findings also confirm this result (Poston, 1990; Segal, 1993; Hunderson et al., 1992; Badri, 1979; Alwani, 1970; El Farouk, 1991). Moreover, Al-Awad (1997) found that religion reduced childhood behaviour problems. Earlier studies in the Sudan have also suggested the positive role of religion in maintaining psychosocial stability and enhancing the mental health of the community in general (Badri, 1998; Badri, 1979; Baasher, 1982; Abdelrahim & Cederblad, 1984).

It is clear from the preceding review of literature that there is an urgent need for investigating the differential effects of religion on both the individual and society. In the Sudan there have been numerous studies that have tackled this issue. Nevertheless their approach involved broad qualitative assessment of the impact of religion (see, e.g. Atabani 1985; Badri, 1979; El Farouk, 1991). In contrast Al-Awad (1997) measured parents' religiosity using a three-point scale ranging from **good** (those who always keep observing their religious duties; e.g., mind his /her prayers, reading and studying Qur'an), **fair** (those who fairly observe their religious duties; e.g., doing prayers, but not keen on reading or memorizing Qur'an), and **poor** (those who do not care about their religious concerns). This method of measuring religiosity was clearly unsatisfactory because Islam regards religiosity as multidirectional, encompassing a wide range of personal, moral and social behaviour (Idris, 1973).

The present paper reports a study in which an attempt was made to incorporate those wider components of religiosity as understood from the Islamic conception (Idris, 1973; Al-Attas, 1995). Hence more practices were included such as performing Zakat (specifically calculated amount of money presented by the better-off to needy Muslims), fasting during Ramadan, observing honesty, keeping away from committing major sins, gratitude to parents, earning of a living through religiously acceptable means, keeping good terms with neighbours and other family and socially oriented practices. Another valuable manifestation of religion in the Sudanese society is the emphasis placed on the practice of social support (see, e.g., Badri, 1979;

1972; Baasher, 1976). Maintaining a good level of inter-social relations is primarily motivated by religious values. This is practically demonstrated in terms of emotional, financial and social support to family members and other communal ties. Moreover, religiosity more than socio-economic rewards and social desirability was found to be strongly associated with marital adjustment (Badri, 1998; Filsinger & Wilson, 1984). However, it is important to note that this classification of Islamic religious observance is only valid at the theoretical level. Practically speaking, all aspects of religiosity influence each other.

### ***Method***

#### *Location and demographic characteristics of the Sudan*

The Sudan is a large country lying in the heart of Africa with a population of 28 million. Sixty-nine percent of people live in settled rural communities, 20 % of the population live in urban setting and 11% of them are nomads. The annual population growth rate is 2.8%. Most of the population in the northern provinces are Arabs or are arabized, unified by Islam and the Arabic language. The southern region is mainly dominated by the Nilotic groups professing different systems of belief and speaking different languages. Islam is the dominant religion in the country. In the Sudan families traditionally consist of 3 or more generations and their siblings living together and sharing domestic duties and economic responsibilities. This type of social structure encourages conformity to acceptable social standards of conduct. The process of worker migration associated with urbanization and industrialization ultimately also leads to a distancing of inter-familial ties. The general rate of illiteracy throughout the country is estimated to be around 65%.

The sample for the present study was taken from Khartoum because it is the main city that represents the entire population of the country. The Khartoum metropolitan (Omdurman, Khartoum, Khartoum North) is the national capital of Sudan with an estimated population of nearly 6 million. This area is predominantly Arab-speaking and Islamic in religion. Migration to the

Khartoum conurbation includes migrants from both urban and rural origins. Khartoum metropolitan is undergoing rapid social change and it is the major governmental, commercial, educational and political center of the country (El-Farouk, 1991).

### *Participants*

The sampling frame for the present study was the population of parents living in Khartoum. Parents were selected on the basis of social group and sex. One hundred Muslim households were selected at random from Khartoum metropolitan reflecting three socio-economic levels throughout the main areas (Khartoum 33, Khartoum North 33, and Omdurman 34). Because there is no sharp class distinction between people in the Sudan, the issue of social stratification remains a problem for researchers. Although social class variations are less clear-cut in the Sudanese society than in many industrialized societies, variations in educational and vocational attainment do exist. These distinctions in vocational status have been regarded as reliable indicators of socio- economic status in previous research (see Adelrahman and Morgan, 1987). In the present study we have adopted the view that social strata can be identified as: some people in the upper class and these are mostly businessmen; the middle class includes the government officials, professionals, and merchants; and the lower class includes the low income labourers who are usually uneducated. The final sample consisted of 50 males and 50 females distributed as 31 lower class parents, 44 middle class parents and 25 upper class parents (see Table 1).

Table 1; The Distribution of the Sample

<b>Area</b>	<b>District</b>	<b>SES</b>	<b>Female</b>	<b>Male</b>	<b>Total</b>
Khartoum -N	Safia	High	4	4	8
	Sha'bia	Mid	7	8	15
	Haj-Yousuf	Low	5	5	10

Khartoum	Riyadh	High	4	5	9
	Saggana	Mid	8	6	14
	Gabra	Low	5	5	10
Omdurman	Oweda	High	4	4	8
	Abrouf	Mid	8	7	15
	Umbada	Low	5	6	11
Total			50	50	100

#### *Description of scale and procedure*

The questionnaire was composed of 16 items based on a likert four - point scale. Items were carefully selected and worded to reflect the concept of religiosity in its wider sense; accounting for activities which concern the subject as an individual, and as a family and community member. These activities which composed the total questionnaire were further recognised in three factors. Factor (1) Personal observance, (2) Family observance, and (3) Societal observance. For instance, factor one included items that mainly reflected the individual's personal activities such as '*fasting; performing prayers; "Zakat" 'reciting and learning Qur'an' 'being honest' 'has intention to perform hajj' or Umra; and 'abstaining from committing gross sins "alcohol intake, gambling, sexual practices, etc."*' ' Factor two included items which primarily characterized family life such as '*marital relations' upbringing of children; 'being kind to parents' and 'means by which a living is secured*. Items tapping the wider social involvement such as, '*helping relatives and needy people; 'participating in social events; 'sharing feeling with others ' 'keeping good relations with neighbours; and seeking Husna (trying to get people to remain in good terms with each other and to strengthen communal ties) constituted factor three. At the outset of the questionnaire the respondents were asked to state their level of education and specify their occupation and then to rate their economic status as good, average or bad. Then the subjects were asked to read carefully*

through the questionnaire and answer by choosing one of the options that would best describe their religious behaviour. The questionnaire was written in simple Sudanese Arabic. Each item described a religious ritual to be rated by the parent on the four-point scale (3-0) according to their fulfillment of that religious practice in the recent past. For example: Do you fast during the holy month of Ramadan in a good manner?

*Always* (scored 3), *Mostly* (scored 2), *Sometimes* (scored 1), *Never* (scored 0). A selected sub-sample (N=20) of the total sample, completed the questionnaire on two separate occasions, two weeks apart for the purpose of calculating test-retest reliability.



**Results**

**Associations and Description of the Demographic Characteristics of the Subjects:**

**Levels of education:**

Adults were assigned to one of the three categories. Category 1 included people who had not received formal education at all or who had been educated up to the equivalent of British primary school level. Category 2 included those who had been educated up to secondary level. Category 3 included those who had been educated to graduate or postgraduate levels. Table 2 shows the percentage of subjects across the three different levels of education in Khartoum. The most common level of education was category 2.

*Levels of occupation*

This was also divided into 4 categories: Category for those who were not employed; category 1 was for those employed as unskilled workers; category 2 was for those employed as middle ranking government officials, teachers and clerks etc. The third category was for businessmen and professionals. Table 2 reveals the percentage of each category of occupation. 13 percent were unemployed, 26 percent were labourers 37 percent were government officials, and 24 percent were professionals and businessmen.

*Economic status*

Rating of high, medium and low were scored as 3,2 and 1 respectively. Table 2 shows that 34 percent of the subjects rated themselves as having low income, 50 percent as having average income while 16 percent indicated that they have high income.

Table 2; Demographic Characteristics of the Subjects

Variable	Low	mid	High
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Level of Education	25%	51%	24%
Economic status	34	50	16
Levels of Occupation*	26	37	24

NB:\*13 % were unemployed

### Associations

Within the sample there was significant association between levels of occupation ( $\chi^2=34.9, df=4, p < 0.0001$ ). Education and economic status were highly related ( $\chi^2 =21.94, df = 4, p < 0.0002$ ). There was also substantial association between occupation and economic status ( $\chi^2=76.4, df= 4, p < 0.0001$ ). Education was significantly associated with sex ( $\chi^2=20.04, df = 2, p < 0.0002$ ). The relationship between occupation and sex was very significant ( $\chi^2= 78.3, df = 2, p < 0.0001$ ).

### Test– retest Reliability

In the present study correlation coefficients were computed from the test and re- test scores. Table (3) shows these correlations. Almost all items obtained large correlation coefficients. All but two items obtained above 0.70 coefficients. These were ‘Having good relations with relatives’ (0.59), and ‘Share feelings with others’(0.68). However, the mean overall Pearson correlation coefficient was 0.91.

Table 3; Results of the Test- retest Pearson Correlation Coefficients

Item	R
Fasting Ramadan	1.00

Performing prayers	.98
Having had Hajj or Umra, or has intention to do so	.98
Offering proper child upbringing	.97
Observing honesty	.97
Reciting and learning Qura'n	.96
Keeping up marital obligations	.96
Performing Zakat	.95
Seeking Hosna (urging people to remain in good	.94
Terms with each other).	
Being Kind to parents.	.90
Helping the needy people.	.89
Maintain good terms with neighbours.	.88
Concern to earn living through halal (religiously).	.87
Acceptable) means.	
Share feeling with others.	.68
Having good relations with relatives.	.59

### Internal Consistency

In order to assess the internal reliability of items contributing to each subscale of the original questionnaire, Cronbach's alpha coefficients were calculated for the items included in those scales. The scale scores for the three factors were calculated by adding the constituent items together. All the subscales i.e. religious observance at the personal, family, and societal levels showed very

good levels of internal reliability. However, when all items were combined in one total scale the internal consistency was even better (see Table 4).

Table 4; Cronbach's Alpha Coefficient for the three subscales

Factor	Alpha
Personalreligious observance	.83
Family religious observance	.85
Societal religious observance	.87
Total religiosity scale (16 items)	.94

### Correlation between the scale factors

All the of subscale factors correlated significantly with each other (Table 5).

Table 5; The Correlation between the Scale Factors.

Factor	1	2	3
1-Personal level			
2-Family level	0.84		
3-Societal level	0.80	0.75	

NB;  $r = p < .0001$

It is interesting to note that the highest association was with the first factor (religious observance at the personal level) and the second factor (religious observance at the family level) the thing which might implicate immediate association or interaction between those levels.

### **Association between religiosity and some demographic variables**

Using factor scores of religiosity index subscales, association of religiosity with economic status, education, occupation and sex variables was examined. Table 6 shows that significant association was found between occupation and the third subscale of religiosity (societal). Together this subscale and the first one (personal) significantly associated with sex. There was no significant relationship at all between religiosity and both economic status and education.

Table 6; Association between Subscales of Religiosity and Demographic Variables

<b>Variable</b>	<b>t-value</b>	<b>Probability</b>
Personal Religious Practice		
Economic status	1.1	
Education	0.5	
Occupation	0.4	
Sex of respondent	1.85	p.>.05
Family Religious Practice		
Economic status	0.9	
Education	1.2	
Occupation	0.7	
Sex of respondent	0.8	

Societal Religious Practice		
Economic status	1.4	
Education	0.7	
Occupation	1.88	p> .05
Sex of respondent	3.42	P < .01

d f = 96

### Effect of gender on religiosity

T-tests were undertaken to examine whether sex of participant had any effect on people's religiosity. Males were found to be more religious on the personal and the societal levels. It is interesting to note that no significant difference was found on the family level (Table 7). When the three scales were combined together in one total scale, males were found to be significantly more religious than females.

Table 7; Shows the Effect of Gender on Religiosity

Variable	Means	Sd.	T-value	Probability
Personal observance				
Males	5.98	1.7		
Females	5.14	1.8	2.39	P<.01
Familial observance				
Males	4.72	1.8		
Females	4.44	.93	1.12	NS
Societal observance				

Males	4.72	1.8		
Females	3.84	2.1	2.25	P<.02
Total observance				
Males	14.3	3.7		
Females	12.4	3.3	2.40	P<01

d f =98

## Discussion

Following the recent recognition of the importance and spiritual issues as a focus of psychiatric consultation, treatment and research the present study has attempted to develop and analyse the validity and reliability of an instrument to be used for the assessment of religiosity in the Sudan. The aims of the present study were threefold. First to develop a religiosity scale from scratch. Second to explore the construct validity, the scales' internal reliability and inter-correlations of the subscales. This analysis was performed to establish the basic psychometric properties of an instrument in order for it to qualify as a screening measure. Third, to examine the relationship between religiosity and some demographic variables including sex of participant.

The scale developed in the current study was found to have good construct validity and satisfactory internal consistency. Thus the Islamic Religious Observance Scale might have utility for screening and research purposes, not only as an assessment and outcome measure but also for testing hypotheses about connections between religion and mental health in the Sudan as well as in other Islamic countries.

Taken together the results from the presents study suggest that IROS is a reliable and valid measure of religious observance in the Sudan. All the subscales i.e.-religious observance at the personal, family, and societal levels showed very good internal reliability. Sudanese raters have a common understanding of the actual attributes that make up the concept of religiosity. Thus, the

conceptual meaning of this notion was established and therefore construct validity was apparently confirmed.

The significant association between the three subscales suggests that in Sudan religious practices encompass a range of different actions and behaviour. The higher association between the first factor (religious observance at the personal level) and the second factor (religious observance at the family level) might demonstrate the compatibility of these two scales. Family life with all its responsibilities has a place at the heart of personal religious behaviour; this might highlight the role of religiosity implicated in family processes including child socialisation, values and adult mental health (Ahmad, 1976, Al – Attas, 1996; Badri; 1976, 1998; Baasher, 1982; Al-Awad; 1997; Kark, et al 1996; Filsinger; 1984; Krause, 1995; Koenig, 1992). Nevertheless, the high correlation between the subscales and the higher level of internal consistency of the whole questionnaire as one scale suggest the conceptual validity of the IROS in measuring Islamic religious observance in its totality and comprehensiveness rather than compartmentalized aspects of behaviour.

With regard to the association between religiosity and the demographic variables, there was no significant relationship between religiosity and either economic status, and education. This result suggests the relative homogeneity of the Sudanese culture in terms of religious observance. With reference to sex differences, males rated themselves as more religious on both the personal and the societal levels. It is most interesting that there was no difference between males and females regarding religious observance in the family domain. This might verify that commitment to family life and duties is perhaps viewed as a religious entity. Males and females were equally committed to family life. This could be true or could be a function of self-rating. Interestingly, on the total scale male rated themselves as more religious than females.

There are some important aspects of Islamic religiosity that were not covered in the present measure. For instance, the concept of `Shihada`, which is the belief and utterance in God as the



One and absolute Creator of the Universe and alone He deserves worshipping and Mohammed His Messenger, is difficult to measure directly because it is in the heart of the Muslim individual although it is largely felt, implied and observed in his practices. Contemplation and reflection in creation with deep submission to the creator is part and parcel of religiosity from the Islamic perspective. It helps the Muslim person to sense his relatedness to the Universe and becoming closer to his Lord, Allah the Almighty. This in turn will help the person enhance and enrich his spirituality. Such practice is obviously beyond the devices of direct measurement.

It remains to say that we should be cautious in interpreting the findings of the present study as they are preliminary at this stage. However, the author believes that so far some progress has been made towards an objective measurement for the concept of religiosity from an Islamic perspective.

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