

CONSTRUCTION AND STANDARDIZATION OF A SEX KNOWLEDGE AND ATTITUDE QUESTIONNAIRE (SKAQ), IN SIMPLE HINDI, FOR NORTH INDIAN POPULATION.

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A self-administered questionnaire (SKAQ) in simple Hindi was constructed and standardized for assessing the knowledge and attitude of a north Indian population towards sex. SKAQ is a 55-item questionnaire split into two parts: a 35-item knowledge-part with dichotomous choice of responses and a 20-item attitude-part scorable on 3-point Likert scale. Higher scores indicated a better knowledge and a liberal attitude. Its test-retest reliability was established and discriminant validity demonstrated. Both males and females showed poor knowledge about and entertained conservative attitudes. Surprisingly, normal subjects were no different from patients with sexual problems.

People are usually ignorant and prejudiced about sex. It is spoken in veiled language and words connected with sex are often regarded obscene. Nevertheless, increasing exchange of information has advanced our understanding of the role of life-experiences, knowledge, behaviour and attitude in human sexuality (Lief and Reed, 1976).

Human sexual behaviour is a complex interplay of instinctive and learnt phenomena. It is modulated by psychosocial factors and the sexual functions can easily be disrupted by anxiety, fear, guilt and anger (Masters and Johnson, 1976).

Clinical experience suggests that in almost all cases of sexual disorders, sexual ignorance or more commonly misconceptions coupled with attitudinal problems play a significant role in the causation as well as perpetuation of the disorder (Kolodny *et al.*, 1976 and Beutler *et al.*, 1980). The ignorance or misinformation regarding sex may derive from a lack of anatomical knowledge, about normal sexual physiology or be related directly to cultural myths or taboos (Cooper, 1969). Sex knowledge can be defined as the general and specific information, acquaintance, cognition about sex, especially human sex relationships and behaviour without any implication of evaluation of such relationship and behaviour, whereas attitude towards sex refers to one's position, posture, gesture towards sex relationship and behaviour. It includes beliefs (knowledge), liking-disliking (affect) and action tendencies (behaviour). With knowledge being such an integral part of the attitude towards sex, any attempt to differentiate the two as independent measurable variables has, as yet, remained an unsatisfactorily resolved theoretical and research issue. Lief and Reed (1972) while evolving their sex knowledge and attitude test, attempted the differentiation by tapping the knowledge as either present or not-present and used the Likert-scale as the

tendencies towards sex (attitude) on the continuum of extremely positive to extremely negative.

In the Indian society, sex has been a forbidden topic for discussion and hence not subjected to proper investigation. There is woefully scanty literature available in India about people's attitude towards sex and their knowledge in this sphere.

Consequently, there is a need to understand the sex knowledge and attitudes of general public. Information obtained can thereafter be used to evolve suitable sex-education programmes, to study the effect on sexual behaviour and on the development of sexual disorders, for the development of appropriate medical curriculum and strategies for attitudinal correction in health practitioners.

Such studies can be greatly facilitated by the availability of easy to administer and standardized tools for the assessment of sex knowledge and attitudes. Research, to date, is limited in this area and is practically nil in India.

AIMS

1. To construct a sex knowledge and attitude assessment questionnaire suitable for north Indian population in simple Hindi.
2. To find out the reliability of the questionnaire.
3. To find out its validity.

MATERIAL AND METHOD

ITEM COLLECTION

Items for the proposed questionnaire were collected from several sources:

i) Sex knowledge and attitude test (SKAT) of Lief and Reed, 1972 served as the principal source for the items. This is a 106-items self-administered questionnaire used for rating the knowledge and attitude of white American population towards sex. The theoretical framework of SKAT and working definitions of knowledge and attitude as stated above were adopted as the principal source. No further differentiation was attempted.

ii) Case-notes of patients attending in one year the psychosexual clinic of the Department of Psychiatry at Postgraduate Institute of Medical Education and Research, Chandigarh.

iii) In-depth interviews with 10 patients suffering from psychosexual disorders and 10 normal subjects.

iv) Items collected as above from i through iii, were placed before 20 experts (psychiatrists, clinical psychologists, gynaecologists and veneriologists) for their comments about each item regarding its suitability, relevance and language. They were also requested to suggest additional items, if any.

ITEM-SELECTION, FORMAT AND SCORING SYSTEM OF PROPOSED QUESTIONNAIRE

It was decided to split the proposed questionnaire into two parts: one dealing with knowledge and the other with attitude. A total of 98 items were selected after repeated editing and subsequent consensus among the investigators. These items broadly covered the areas of premarital, marital and extramarital sex relations, sexual dysfunctions and deviations, sex-drive, autoerotic behaviour, birth control, human sexual anatomy and physiology. Knowledge-part had 62 items with dichotomous response-choice of yes/no and a maximum attainable score of 62. Attitude-part contained 36 items, which were to be rated on 5 point Likert scale, on a continuum of strongly disagree to strongly agree, with a maximum attainable score of 180. Higher scores indicated a better sex knowledge and a more liberal attitude towards sex.

ITEM-TRANSLATION

Three experts independently translated each item from English language to simple Hindi. These different translated versions were circulated to 10 experts (psychiatrists and clinical psychologists) for their

comments and suggestions. After suitable modifications, by consensus, a single translated version of each item was accepted and it was back translated to English by another three experts. Such elaborate and tedious exercise was undertaken to ensure that the essence of questions was not lost in the translations. The final Hindi translated version of the questionnaire was named SKAQ-I (Sex knowledge and attitude questionnaire-I).

FIRST TRY OUT

Item analysis of SKAQ-I was carried out on three groups of 20 subjects each, matched on age, education and occupation viz. psychosexual male patients, normal male controls and female. A desired group of 20 female psychosexual patients was not available for the study.

Point biserial method was followed for finding out the item-total consistency of knowledge part of SKAQ-I and $E^{1/3}$ method (Bureau of Psychology, 1966) was used for the attitude part. This $E^{1/3}$ technique is very similar to the phi-coefficient of correlations method. It was decided to delete items with $E^{1/3}$ value below 0.19. However, five items in knowledge part with borderline values were suitably modified and retained. In these items, the difficulty level of the items was reported to be high. Spread of responses and endorsement rates were also taken into consideration before deciding whether to accept, reject or modify an item.

Thus out of the original 62 items in the knowledge part and 36 items in the attitude part, only 35 and 20 items respectively could be retained. The response categories were reduced from 5 choices to just 3 choices in the attitude part because subjects had mostly limited their responses to three choices only and, moreover, it has been the experience over the years that our subjects find it difficult to use 5 or more response categories, particularly those coming from rural background or with low level of education and sophistication. The final 55 items sex knowledge and attitude questionnaire was named SKAQ-II.

Further work was carried out on SKAQ-II only.

RESULTS

TEST - RETEST RELIABILITY

This exercise was carried out on 60 subjects (20 each of patients, normal males and normal females). SKAQ-II was administered twice to this sample at an interval of two weeks. Correlations were calculated

between the responses on the two test-administration and were found to be statistically significant and satisfactory for both knowledge and attitude parts.

Table 1. Test-retest reliability of SKAQ-II at 2-weeks interval

	N	Knowledge	Attitude
Patients	20	0.553 [*]	0.534 [*]
Normal females	20	0.422 ^{***}	0.592 ^{**}
Normal males	20	0.483 [*]	0.739 ^{**}
Total	60	0.433 ^{**}	0.665 ^{**}

*p < .05 **p < .01 ***approaching .05 level

TEST-VALIDITY

Discriminant validity of SKAQ-II was undertaken on a sample of 80 subjects. Besides the three groups of male psychosexual patients, normal males and females, a fourth group of 20 experts (Psychiatrists, clinical psychologists, gynaecologists and veneriologists) was also included. Validity was tested against the following hypotheses:

- i) Normal males and females will differ on expressed attitude but not on knowledge.
- ii) Normals will differ from psychosexual patients on both expressed knowledge and attitude.
- iii) Psychosexual patients will be different from the experts on their expressed knowledge and attitude.

These hypotheses are mainly drawn from authors' own experiences with the patients and their relatives/friends as well as on the basis of their earlier research findings (Singh *et al.*, 1987). It has been seen that, by and large, both male and female patients/spouses are equally knowledgeable or ignorant about sex matters but their attitudes towards sex may be different due to greater permissiveness allowed to males in our society (hypotheses-i). Normals are expected to be more knowledgeable with less punitive attitudes towards sex than sexually dysfunctional patients otherwise they may also have had similar symptoms, hence (hypotheses ii). Lastly, experts should know the best hence, (hypotheses iii) otherwise they would not be called experts in the area. Moreover, hypotheses are suggested answers to problems whose validity has to be tested and established. Therefore, the

need was felt to put them to test in this study.

The results of validity exercise demonstrated that whereas patients of psychosexual dysfunctions did not differ from normal male controls in their attitude towards sex, there were significant differences in attitude towards sex between normal males and females and between experts and patients (Table 2). Males were more liberal in their attitude towards sex than females and experts had the most liberal attitude among all the groups.

Table 2. Validity exercise: Attitude part of SKAQ-II

	N	Mean
Patients	20	29.2
Controls	20 t = 0.03	29.15 N.S.
Normal males	20	29.15
Normal females	20 t = 2.04	25.95 p < 0.05
Experts	20	41.8
Patients	20 t = 6.60	29.2 p < 0.01

Validity exercise carried out for knowledge part of SKAQ-II revealed no difference on sexual knowledge between patients and controls or between normal males and females (Table 3). However, the experts did possess a significantly better sex knowledge than patients or any other group.

Table 3. Validity exercise: Knowledge part of SKAQ-II

	N	Mean
Patients	20	11.25
Controls	20 t = 0.27	10.9 N.S.
Normal males	20	10.9
Normal females	20 t = 0.66	10.1 N.S.
Experts	20	20.9
Patients	20 t = 9.43	11.25 p < 0.01

DISCUSSION

A few clinic-based studies done in India, on psychiatric patients or patients with psychosexual dysfunctions have highlighted the role of sexual fears, ignorance and guilt in the disturbed sexual relations of their subjects (Bagadia *et al.*, 1972; Nakra *et al.*, 1978 and Kar and Varma, 1978). However, none of these earlier studies used any reliable or valid instrument to study these psychological aspects, nor did they attempt any quantification of sex knowledge. Moreover, attitude towards sex were described in vague and general terms such as 'harsh' or 'unhealthy'.

Bhale Rao *et al.* (1980), using a specially designed proforma, targeted the student population and explored into their knowledge and attitude towards sex as a specific enquiry. But probably the first quantification of sexual knowledge and attitude with the use of a self-administered instrument was attempted by Singh *et al.* (1987). Modified version of SKAT (Lief and Reed, 1970) was employed by Singh *et al.* (1987) and apart from showing the differences in level of knowledge and type of attitude towards sex in their respective study groups, they also demonstrated the possibility of a relationship between better knowledge and liberal attitudes. Because of the transcultural differences, the instrument devised by Lief and Reed for the White-American population could not be held relevant for our population. Nevertheless, the need for an easy to administer reliable and valid instrument for the assessment of these two psychological variables was underscored and was rather felt for a long time.

The results of the present study show that the SKAQ-II is a reliable and valid measure of knowledge about and the attitudes towards sex in simple Hindi, and could be used with confidence on our population. The fact that even the so-called "normal" healthy male and female subjects were found to have poor knowledge and unfavourable attitudes towards sex, shows the importance of and the need for imparting correct sexual knowledge to them. The males had only slightly more favourable attitudes but were as poor as females with regard to sex knowledge.

In this study, SKAQ failed to discriminate patients with psychosexual dysfunctions from normal controls on both sex knowledge and attitude. It was presumed that psychosexual patients shall be peculiar in their poor knowledge and conservative attitudes towards sex. Further research is therefore, required to establish the influence of these two variables on the causation and/or perpetuation of sexual dysfunctions and even on the overall human sexual behaviour.

Hopefully, Sex Knowledge and Attitude Questionnaire (SKAQ) may fulfill that need. It has satisfied some requirements of a reliable and valid instrument. Nevertheless, the major limitation of the lack of a satisfactory theoretical differentiation between sexual knowledge and attitude before evolving a measuring-tool sticks with this Questionnaire as well. Although SKAQ may not fulfill the ideal test requirement there exists no satisfactory tool for measuring these two variables that can be given to Indian subjects with some degree of confidence. Therefore, it shall be essential to apply this instrument on larger and varied populations as well as to carry out different validity exercises. Then only the requirement to develop norms for the population(s) may be met with.

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