

Indian Psychiatric Survey Schedule (IPSS)*

R. L. Kapur,¹ Malavika Kapur,¹ and G. M. Carstairs²

¹ Edinburgh-Manipal Psychiatric Research Project,

² University of Edinburgh, and Director, E. M. P. R. Project, Edinburgh, Great Britain

Summary. The paper describes the development of Indian Psychiatric Survey Schedule (IPSS) which is designed to inquire about the presence of 124 psychiatric symptoms and 10 items of historical information in the general population. The symptoms as well as the items of historical information are the same as those in IPIS (Kapur et al., 1974) but because of a multi-stage procedure adopted with IPSS, the inquiry takes much less time than that for IPIS. - A "preliminary interview schedule" which is meant for all members of the population can be used by a non-psychiatrist after a short period of training. The other sections in IPSS, that is "detailed inquiry with the subject", "detailed inquiry with an informant" and "observations during interview" are completed when necessary by a trained psychiatrist who also gives a physical examination when somatic symptoms are reported. - The paper describes the reasons why a multi-stage procedure was designed, a pilot study which helped reach certain decisions regarding the construction of the schedule and the results of a study carried out to test the level of agreement obtained when three non-psychiatrists (after a short period of training) and a psychiatrist used the preliminary interview schedule with 40 hospital patients and 40 members of the general population.

The aims, development and the main features of Indian Psychiatric Interview Schedule (IPIS) have already been reported (Kapur, Kapur and Carstairs, 1974). Though similar to other standardised interview schedules in its essential design, it has certain special features:

- a) Symptoms in the check list are those commonly reported in the Indian setting.
- b) The Schedule has a 10 item section on historical information.
- c) There is a section for gathering information from a close relative.

The rationale behind these special features is also discussed in the above-mentioned paper.

IPIS is a lengthy schedule with 124 items and is meant for use in a clinical setting.

Goldberg et al. (1970) have commented on the unsuitability of long interview schedules for field surveys. They advocate a two stage procedure: a rapid selection of potential cases in the first stage and confirmation of psychopathology in the second stage, the latter to be carried out in a realistic clinical setting. They do not describe the first stage procedure but go on in their paper to describe a 22 item interview schedule for the second stage examination, and demonstrate its reliability. Their approach has some obvious defects:

- a) The symptom check list for the second stage procedure (22 items in all) is too short. There is no reason why, after the preliminary interview has already excluded from investigation a large proportion of population with no possibility of psychopathology, a more detailed examination cannot be carried out for the "suspects".

- b) Their insistence on conducting the second stage inquiry in a clinical setting is unrealistic. Those involved in field research are painfully

* Prepared on a Grant from Foundations Fund for Research in Psychiatry.

aware of the fact that very often it is difficult to contact a respondent even for one interview. Many respondents become impatient and unavailable when approached a second time, and it is even more difficult to persuade people who never asked for an interview or help to come to be interviewed in a clinical setting.

c) The information about a respondent's mental state is gathered from him alone. We have already demonstrated in our description of IPIS how important information can be missed, especially about items which distress others rather than oneself, if inquiry is not made from "significant others".

The Indian Psychiatric Survey Schedule (IPSS) was developed with a view to preparing an instrument which was suitable for a field survey in an Indian setting and which took into account the criticism made above about the work reported by Goldberg and his colleagues.

Procedure

1. A provisional interview schedule was prepared which could be used by lay investigators and through which a preliminary inquiry could be made, specifically about the mental state of the respondent himself, and generally about the mental state of those in his family and in his village. It had two sections.

The first dealt with the mental state of the respondent. It had 22 questions, most of them being the preliminary questions in the IPIS, Section II (Inquiry from the patient).

The second section opened with a question: "Do you know anyone in your family or in the village who suffers from . . .", and this question was followed by 21 questions about items of behaviour which can be distressful and of nuisance value to others, or are easily recognisable as odd.

This schedule was designed to pick up "suspects" who would then be examined by experts with the help of IPIS.

Pilot Field Study

2. The provisional, preliminary inquiry questionnaire was tested for its feasibility in a small village with a population of 400. The following observations were made in this study:

a) As mentioned in the introduction, it was very time-consuming and very often difficult to contact the "suspects" once again for the subsequent detailed IPIS inquiry.

b) The provisional schedule was so design-

ed that the answers were to be recorded as "Yes" and "No". It soon became apparent that for many questions it seemed most natural to conduct an immediate cross examination. For example, if a person reported sleeplessness it improved the rapport and produced more information if questions like "Since when" and "How often" were asked at the same time, rather than leave them to be asked by the expert at a subsequent interview.

c) The section about "others" gave useful information about many who might have been missed out had this section not been used. For example, the two cases of attempted suicide in the village, one "burnt out" schizophrenic and two "possession" cases would not have been discovered but for this section. A few general points specially relevant to the Indian setting also came to notice:

(i) It became apparent that women should not be interviewed by men investigators: they felt too shy and hesitant to talk to men. The men of the village also did not like their women being interviewed by men. In one case the interviewer was chased away by the woman's father-in-law!

(ii) It also became clear that though women did not mind being interviewed by women investigators about their own mental state, they hesitated a lot when asked about others, claiming that they liked to mind their own business and did not pry into the affairs of others. On further discussion with some women, it came to light they were afraid of divulging information about others without prior permission from their men.

(iii) Indian villagers are not sophisticated enough to understand the abstract benefits of such inquiries and nearly always wanted to know what "they" themselves would get out of co-operating with us. The giving of cheap medicines on the spot, and help in arranging consultations with doctors at the Civil Hospital when necessary, were found to be the best methods of gaining co-operation.

3. From the lessons learnt in the Pilot Study, the following decisions were taken:

a) To include cross examination for certain items in the preliminary inquiry itself and to train the prospective lay investigators for such an inquiry and for recording the symptoms with the help of instruction manuals. It was decided, however, that for certain items, especially those which might indicate psychosis or physical pathology, the "suspects" should be further examined by an expert.

b) It was also decided that the questions about the "others" should be asked from men

only, since in the pilot study, for the reasons already discussed, the women did not show co-operation in completing this section.

c) For all those "reported" to have symptoms in Section II of the preliminary inquiry, and those having delusions, hallucinations or disorientation on direct inquiry, an interview must be carried out with a near relative on the pattern of IPIS, Section I (Interview with the informant).

A Description of Indian Psychiatric Survey Schedule

IPSS, as it stands at present, is designed to inquire about the presence or absence of 124¹ symptoms and 10 items of historical information, the same as in IPIS. The inquiry is carried out through a multi-stage procedure:

a) All members of the population are given a Preliminary Interview Schedule, having two sections. This schedule is designed for use by non-psychiatrists who have had a short period of training. The first section has 26 standard questions followed by a standard cross examination. There are a number of cut-off points and the inquiry can be made more detailed when necessary. It is possible to elicit the presence or absence of 26 "somatic" and 36 "psychological" symptoms, the decision being made by the investigator guided by an instruction manual giving standard definitions for the various symptoms. Ten items of historical information are elicited from anyone having one or more symptoms.

To encourage co-operation, questions are first asked about more acceptable somatic items, then about sleep, appetite and other

items of subjective distress and only at the end about delusions and hallucinations. Section II has fifteen questions about items of distress or nuisance value to others and the respondent is asked if he has observed these in any member of his family or his village.

Table 1 gives the check list of items in the Preliminary Interview Schedule.

Table 1. Items in preliminary questionnaire

Symptoms

*Pain	head
*Burning	chest
*Itching	in anogenital region
*Numbness	rest/whole body
*Other odd sensations	

*Dizziness, *Indigestion, *Weakness,
*Nausea, *Wind, *Fits.

Sleep delay, Early waking, Generalised sleeplessness, Nightmares, Loss of appetite, Subjective forgetfulness, Poor concentration, Pathological worrying, Feelings of inferiority, Situational anxiety, Phobias, Free-floating anxiety, Panic attacks, Muscular tension, Restlessness, Fugitive impulse, Running away, Pressure of ideas, Poverty of thought, Irritability, Depression, Dullness, Loss of interest, Feelings of incompetence, Suicidal feelings, *Suicidal attempt, *Guilt feelings, Self blame, Compulsions, Obsessional ideas, *Sexual problems, Painful menstruation.

*Demon trouble, *Ideas of persecution,
*Hallucinations, *Special powers.

Historical Information

First symptom, Duration of illness, Mode of onset, Course of illness, Number of attacks (if applicable), Progress of illness, Cause of illness, History of consultation, Previous history of mental illness, Family history of mental illness.

Note: Wherever a symptom marked with an asterisk is reported, a detailed inquiry must be carried out by an expert.

¹ As in IPIS, a symptom is defined as an item of behaviour, speech, mood, thinking and sensorium which (a) represents a change from the usual pattern for the individual, and (b) is distressful to him or those around him or both. The subject or the informant must be able to describe a point in time since when the distressful item has been present; a life long pattern, be it odd or distressful, is not taken as a symptom. Unless otherwise specified, the symptom is recorded only if it is present at the time of interview and/or during the preceding week. Symptoms are recorded individually; no overall symptom score is computed.

b) Anyone having somatic symptoms is given a physical examination by the expert to exclude obvious physical pathology.

c) If fits, attempted suicide, delusions or hallucinations or possession are elicited in the preliminary inquiry, the respondent is given a detailed interview by a trained psychiatrist.

d) A close relative who has seen the respondent for at least one hour every day during the preceding week is given a detailed standardised interview, if:

(i) anyone while completing the Section 2 of the preliminary inquiry has reported that the subject suffers from one or more items in that section; or

(ii) on detailed inquiry with the subject himself, the presence of fits, possession, delusions or hallucinations is confirmed.

e) For every respondent who needed a detailed inquiry or whose relative was interviewed, the Psychiatrist also completed a schedule referring to "Observations during interview".

f) For items identified from more than one source (i. e. inquiry with the subject, inquiry with a close relative or observation by investigator), the symptom is recorded as present when its presence has been ascertained from at least one source.

Our Pilot Field Studies showed that physical examination is necessary for about 30% of the population and a detailed inquiry from the respondent himself and/or his close relative is necessary in less than 5% of population.

Training of the Non-Medical Investigators and Tests of Reliability

IPSS is based on the assumption that non-medical investigators can be trained to use and make correct decisions about the presence of many symptoms. This assumption was put to test.

A training programme was carried out at Bangalore Mental Hospital, when two Sociologists, one male and one female, and a Psychiatric Social Worker were taught the use of the Preliminary Inquiry Schedule, by a trained psychiatrist. The training programme proceeded through the following stages:

- a) The trained psychiatrist examined 20 cases while the others watched the procedure.
- b) The psychiatrist conducted interviews with 20 cases, while all the trainees recorded the symptoms separately without consulting each other.

- c) The psychiatrist and the three trainees took turns to interrogate 20 patients (5 each), but each recorded symptoms for all the 20 cases.

All through the training, there were many discussion sessions in which the participants put forward their doubts and queries, and were repeatedly tested for their knowledge of the definitions given in the instruction manual.

The training programme was completed in three weeks and was followed by tests of reliability.

First Reliability Study

This was conducted in the hospital with 40 inpatients. Only those patients were included in the study, who could co-operate in answering the questions. The psychiatrist and the three non-medical workers who took part in training programme took part in this reliability study. The investigators took turns at using the schedule while all the four recorded the symptoms for each patient. Thus 10 patients were interviewed and symptoms for 40 patients recorded, by each investigator.

Second Reliability Study

This was conducted in the field, with 40 unselected members of the general population on the same pattern as the First Reliability Study.

The results of the two Studies are given in Table 2.

Positive agreement refers to the number of times all the four investigators agreed about the presence of a symptom.

Negative agreement refers to the number of times all the four investigators agreed about the absence of a symptom.

Disagreement refers to the number of times at least one investigator disagreed with others about the presence of a symptom.

Disagreement proportion is the number of disagreements divided by the total number of ratings.

Disagreement index is the number of disagreements divided by the number of times a positive rating was made by at least one investigator. This index is similar to that used by Sartorius et al. (1971).

As the Table shows, the disagreement is so small in both the Studies that no further statistical tests were considered necessary.

Table 2. Tests of reliability

	Hospital study N = 40 No. of ratings	Field study N = 40 No. of ratings
+ive agreement (a)	150	58
-ive agreement (b)	2.324	2.416
Disagreement (c)	6	6
Total (d)	2.480	2.480
Disagreement proportion	0.002	0.002
Disagreement index	0.038	0.104

Disagreement proportion: Total disagreements divided by total number of responses (+ive or -ive), i. e. c/d.

Disagreement index: Total disagreements divided by total number of ratings where at least one investigator made a positive rating, i. e. c/c + a.

Discussion

The ideal in the field research is to obtain maximum, reliable and valid information about a population under study with minimum expenditure of time and effort.

An unstandardised "clinical" interview is likely to produce unreliable information (Wing, 1971), while a "questionnaire" approach, "because of the rigidity of the questions, lack of provision for cross examination to clarify doubts and taking the judgement about presence or absence of symptoms out of the hands of the investigator, loses in validity what it gains in reliability" (Kapur, Kapur and Carstairs, 1974).

Structured interview schedules like the Present State Examination (Wing, 1971) and IPIS (Kapur, Kapur and Carstairs, 1974) can obtain comprehensive information which is also reliable but these are too time consuming and since they are designed to be used by trained psychiatrists only, they are too uneconomical for field surveys.

IPSS is a variation of structured interview procedure with a multistage design, not all the stages being necessary for each respondent. A large proportion of the inquiry can be reliably conducted by non-psychiatrists after a short training programme. This means a great saving in time, as well as in the number of trained psychiatrists required for a survey without in any way curtailing the range of inquiry.

The criteria for deciding whether a detailed inquiry by an expert is necessary or whether a close relative is to be interviewed, are fully standardised.

It is encouraging to see that non-psychiatrists can be trained to use the Preliminary Inquiry Schedule reliably in a short period, the difference in their judgement from that of the trained psychiatrist being insignificant as is shown in Table II. The questions in sections on "detailed inquiry with the subject", "detailed inquiry with the informant" and the items in the section on "observations during interview" were all drawn from IPIS (Kapur, Kapur and Carstairs, 1974). The reliability of IPIS having already been tested, no further tests of reliability of these sections were considered necessary.

Our preliminary work on a field survey shows that a team of one psychiatrist and three non-psychiatrists can jointly make a complete examination (including detailed inquiry when indicated) of between 20 - 30 respondents in a normal working day, one psychiatrist being just enough to handle the referrals from the three non-psychiatrists. We have found it more useful to have the psychiatrist examine the referrals on the spot rather than see them later in a clinical setting. There are certainly advantages in asking personal questions from the respondent away from his home and the onlookers, but the risk of the respondent becoming "unavailable" on a subsequent approach is too high to permit using the benefits of a

clinical setting. Our pilot work also shows that the fear of "onlookers" being present is very often exaggerated and the villagers are quite willing to curb their curiosity when promised that they would soon have their turn. It is difficult to get rid of children but Indian villagers do not appear to mind discussing personal problems in front of the children.

In an Indian setting where the medical facilities are poor, the survey team will come across many undiagnosed and untreated examples of physical illness and the psychiatrist will have to use his medical training to distinguish the somatic symptoms due to physical illness from those which are not. IPSS therefore makes it compulsory for the psychiatrist to make a physical examination when somatic symptoms are reported. It must be stressed, however, that only gross physical pathology, immediately apparent on a physical examination, can be excluded in this manner.

It must be remembered that in any psychiatric survey with any form of investigation, the respondents may deliberately not give information about "sensitive" items like attempted suicide or items which disturb others rather than themselves. Some may be unable to cooperate because of a lack of insight. An inquiry about "others" in the preliminary schedule and an interview with a close relative in special cases reduces greatly the risk of losing information. This was confirmed in our pilot survey.

The authors do not assume that anyone with symptoms is a "case" in the sense that he needs help and treatment. Such need is determined by other factors, for example the level of subjective distress, distress to others, disruption in day to day social functioning; and these dimensions need separate lines of inquiry.

IPSS also does not provide any criteria for a reliable diagnosis on the basis of information obtained through this schedule; that is a much bigger task, and we are content at present to estimate the presence or absence of a given check list of symptoms in a reliable manner.

Copies of IPSS and the instruction manual may be obtained by writing to Dr. R. L. Kapur, University Department of Psychiatry, Royal Edinburgh Hospital, Morningside Park, Edinburgh, EH10 5HF.

Acknowledgements. We are grateful to Dr. Sayeed Ahmed, Mr. K. N. K. Eshwar, Miss R. Kshama and Miss V. Lalitha, for taking part in the reliability studies.

We are very grateful to Dr. Shivram Karanth for help in designing the questions in Kanada.

References

1. Goldberg, D. P., Eastwood, M. R., Kew, H. B., Shephard, M.: A standardised psychiatric interview for use in community surveys. *Brit. J. prev. soc. Med.* 24, 18-23 (1970)
2. Kapur, R. L., Kapur, M., Carstairs, G. M.: Indian Psychiatric Interview Schedule. *Social Psychiat.* 9, 00-00 (1974)
3. Wing, J. K.: A standard form of psychiatric present state examination and a method for standardising the classification of symptoms. *International Symposium in Psychiatric Epidemiology.* Hare, E. H., Wing, J. K. (eds.), Oxford: University Press 1971
4. Sartorius, N., Brooke, E. M., Lin, T.: Reliability of Psychiatric Assessment in international research. *International symposium on Psychiatric Epidemiology.* Hare, E. H. L., Wing, J. K. (eds.) Oxford: University Press 1971

R. L. Kapur, M. B. B. S.,
Ph. D. (Edin.) D. P. M.
University Department of
Psychiatry
Royal Edinburgh Hospital
Morningside Park
Edinburgh, EH10 5HF
Great Britain