## Original article

# Evaluation of an Amharic version of the Composite International Diagnostic Interview (CIDI) in Ethiopia

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**Abstract**: The feasibility, reliability , and acceptance of the Amharic version of the CIDI (Composite International Diagnostic Interview) was tested in a patient-population of a psychiatric hospital and an inner-city community sample in Addis Ababa. In the hospital-based study, the CIDI was judged to be acceptable by most clinician and non clinician interviewers. Concerns about it included the length of the interview and difficulties with a few of the items. For specific diagnoses made with frequency of five or more time, percent agreement and kappa ranged from 92.5%-100% and 0.78-1.00, respectively. In the community-based study, a total of 502 individuals selected from Arada district by systematic random sampling were interviewed. Estimates of prevalence for specific diagnoses are comparable with earlier prevalence estimates from Ethiopia. It is concluded that the Amharic version of CIDI is reliable, acceptable, and feasible for use in. mental health studies in Ethiopia. Further studies of parts of the CIDI (especially the sections of organic brain syndrome and use of drug) are recommended. [Ethiop. I. Health Dev. 1996;10(2):6977]

**Introduction**

Prevalence data on specific mental disorders are of vital importance for planning and evaluation of mental health programmes. They are also required for scientific understanding of the determinants and course of a disease. One of the problems in determining the prevalence of specific disorders throughout the world (and in Ethiopia) has been lack of an instrument which is reliable, acceptable and feasible in cross-cultural and community studies while at the same time is capable of making diagnosis according to generally accepted diagnostic classifications such as DSM and ICD.

The Composite International Diagnostic Interview (CIDI) has been produced in the framework of a major project (the joint projection Diagnosis and Classification of Mental Disorders, and Alcohol and Drug related
problems) undertaken by WHO and the US Alcohol, Drug abuse and Mental Health
Administration; It is a comprehensive, fully standardised diagnostic interview for the assessment of mental disorders according to
the definition and criteria of DSM-III-R(l) and ICD-I0 (2). The CIDI has been designed for use in a variety of cultures and settings. Although it is primarily intended for use in epidemiological studies of mental disorders,
the CIDI can also be used for clinical purposes, and can be supplemented by modules for diagnosis not covered in the core version (3).

In the course of its development (4), the instrument was subjected to a number of tests for feasibility, diagnostic coverage, test re-test reliability as well as procedural reliability (3,4). The CIDI interview can be administered by interviewers with no clinical background trained for five days following the specification

for conducting the training. The instrument is designed for adult respondents who may be markedly

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different in education, cultural backgrounds and intelligence. The average administration time is about 75 minutes (5). After completion, interviews have to be edited for completeness and accuracy by an editor with a medical background or a non-medical one with access to a physician to consult (5). Data entry is made using the CIDI data entry programme and this has to be followed by computer editing and consistency check before applying the diagnostic programme to it (6).

The report presented here is on a study which assessed the reliability and acceptability of the Amharic translated Composite International Diagnostic Interview (CIDI) on a patient-population of a psychiatric hospital and an inner city district community sample of Addis Ababa.

**Methods**

The study was conducted between September. 1992 and May 1993 in Addis Ababa. The CIDI (English, version 1.0, 1990) instrument used for this study was purchased from the Department of psychiatry , University of Washington, Seattle, Washington. The following instruments were obtained: Researcher's copy (7), Interviewer's copy (8) User's manual (5), Training manuals 1-111 (9), Computer manual(6) and CIDI discs (installation, data entry and diagnostic). Appropriate formats (interviewers and observers) were prepared locally.

The CIDI was translated into Amharic by the investigators. Interactive back translation applied at a later date gave similar results. In this study a non-clinician interviewer was defined as a person who completed 12th grade with no clinical experience and unable to make diagnosis 11\ the absence of CIDI interview. A clinician interviewer was defined as a medical doctor who studied the DSM-111-R criteria for the specific diagnosis made by CIDI and is able to make the specific diagnosis in the absence of CIDI interview. .

After training and in order to keep the degree of experience comparable, both clinician and nonclinician interviewers were made to conduct seven live interviews each. To pretest the Amharic CIDI, 15 adult subjects from one of the subdistricts in the district not chosen for the main study were interviewed. For this, 15 households were selected by random systematic sampling. From each household one respondent was randomly selected. When a refusal was encountered the alternate house number next chosen was in the order of + 1,- l, +2, or-2 of the original house number chosen. CIDI responses were edited and entered into the CIDI computer programme.
From the pretest a number of problems were identified.

*Inter-Rater Reliability*: Respondents for the reliability interview were inpatients and out- patients of a psychiatric hospital (Amanuel Hospital) who reside in Addis Ababa and subjects randomly

selected from ten kebeles (sub-districts). Exclusion criteria were: (1) inability to communicate in Amharic, (2) refusal to give the interview, (3) age below 18 years and (4) respondents residing outside Addis Ababa. Twenty in-patients were selected based on diagnoses made by psychiatrists to include the commonest disorders diagnosed by psychiatrist and accommodated also by the CIDI diagnostic range. Other 24 patients were selected from outpatients similarly to include milder psychiatric disorders covered by CIDI and possible non-psychiatric diagnosis. The remaining 20 respondents were selected randomly from the ten kebeles .

The 18 non-clinician interviewers (nine females) and three clinician interviewers (all males) participated in the interview. Each clinician interviewer was first randomly paired with one of the non-clinician interviewers. The pairs, which contained male non clinician interviewers were randomly assigned to 36 male respondents and the pairs which contained female non clinician interviewers to 28 female respondents. Each clinician interviewer was made to act alternatively as an interviewer or observer. The activities an interviewer performed when assigned the role of interviewer were: (1) to administer the CIDI interview and code or write down responses., (2) note questions which he/she thought were not understood by the respondent and leave the respondent for the observer pair at the end, (3) write down the questions not understood by the respondent after the interview in his own way in a format prepared for this purpose without changing the meaning and (4) Administer the questions he/she wrote in that format and record the response found in the format prepared for this purpose.

The activities an interviewer performed when assigned the role of observer were: (1) listen to responses to the questions administered by the interviewer pair and code or write down responses in his interview schedule independently, (2) note questions incorrectly probed by his interviewer partner and skip them without coding, (3) perform activities similar to that of the interviewer listed in 2,3 and 4 above, (4) probe again the questions he/she skipped due to incorrect probing by interviewer partner and code the new response in his/her interview.

After each interview, interview sheets were collected and edited by clinicians trained in CIDI. Problems and mistakes found were discussed with the concerned interviewer or observer and reinterviewing of a particular
part was done as required. Results of both clinician and non-clinician interviewers were entered into computer independently, edited and consistency check was done. In addition, third time interview was done as required when problems similar to the above were encountered. From the additional formats: (1) questions which interviewers and observers believed were not understood, (2) the way these questions were administered after modification and (3) the responses to these were compiled. These were analysed and used
for modifying the Amharic CIDI. To assess the agreement between clinician and non- clinician interviewers, kappa and percent agreement for presence or absence of diagnosis and major specific diagnoses were calculated.

The results and difficulties were discussed clinician interviewers to make the necessary revision and change in the CIDI. After this, the final modified Amharic versionof CIDI was prepared and both clinician and non-clinician interviewers were given a one- day orientation on the new changes in the interview and other problems encountered in administering the interview.

*The prevalence estimate*: This was conducted in Arada District in Addis Ababa. The district had 27 sub-districts with a total population of 102,263 and a male-to-female ratio of 96:100. The source population was the total adult population of Arada district and sampling units were households in the district. Since the aim
was to evaluate the CIDI in a community sample it was decided to do the study in about 500 respondents living in the district. To get this sample size, nine kebeles (sub-districts) in the district were randomly selected. For household selection the total number of the households in the nine kebeles was divided by 500 to get the value "k" (the sampling interval). Households from each kebele were chosen by starting from a randomly selected household in the kebele and continuing with every "k"$^{th}$ household. Individual respondents from each household were also selected randomly. Exclusion criteria were: (1) age less than 18 years old, (2) inability to communicate in Amharic and (3) refusal to participate. In these cases replacements were in the order of +1,-1,+2,2 from the original household number selected.

After a study subject was identified, interviewers first gave or read out a note to inform subjects the purpose of the study, the type of the interview, the way it is to be conducted and the benefit the respondent gets and request for his/her consent. After getting consent, the interviewers conduct the interview immediately or arrange an appointment which is convenient to the respondent. Respondents were interviewed privately by an interviewer of the same sex. All interview sheets were collected from the interviewers and edited by; editors who are medical doctors and had training in CIDI. After editing, the necessary corrections were made by discussion with the
interviewer and re-interviewing was done as required. Finally, responses to the CIDI interview were entered into a computer using the CIDI data entry programme by which they were edited and their consistency checked. Mistakes or inconsistencies found were discussed With interviewers and re-interviews were done as required. Computation of diagnosis was done using the CIDI computer programme. Additional analysis was done using the SAS statistical programme (SAS Institute Inc. , 1988).

**Results**

*The Enter-Rate Reliability:* Of the 64 subjects rated by clinician and non-clinician interviewers and observers,(using the pre- tested CIDI) only 59 (19 from inpatients, 19 from community, and 21 from outpatients) were eligible for analysis. The remaining five interviews could not be analysed due to incomplete coding and difficulty to trace and re-interview respondents when in consistencies, ,incomplete sections and mistakes of coding were found, which made the application of diagnostic programme impossible.

The mean age of the respondents was 28.8 years; 57.6% were males and 42.4% females. With respect to marital status 64.4% were married, 1.7% widowed, 1.7% separated, 3.4% divorced and 28.8% never married.
With Respect to education, 15.3% had no formal education, 22.0% had primary or junior secondary level education and the remaining 62.7% had attended secondary or higher level of training. Only 30.5% were currently employed.

Nine (50%) of non-clinician interviewers judged the CIDI interview as being good, six (33.3%) as moderate and three ( 16.7%) as poor, while all clinician interviewers judged it to be good. CIDI was rated as appropriate for in-.patient and community setting but inappropriate for out-patient setting by all clinician interviewers. Concerns expressed about the interview by both clinician and

non- clinician interviewers and item-related problems collected from the format for this purposes were: (1) the length of the interview (especially the substance abuse part which included several locally unknown drugs and substances). (2) the repetitiveness of the probing, recency and onset questions, (3) difficulty in administering item 18 of section
D, item 48 of section E, item 25 of section F, item 1 of section I, and the whole section L, due to complexity of sentence (4) difficulty in administrating item 20 and 32 of section D; item 1 and 6 of section K due to the length of sentences. The responses of interviewed subjects to possible future interview were: eager (20.3%), receptive (40.7%), no reaction (16.9%), reluctant (11.9%) and refusal (10.1% ). The average duration of interview was 150 minutes (the longest 285 minutes and the shortest 60 minutes). Average number of interruption per interview was 0.59.

The number and percentage of subjects fulfilling diagnostic criteria according to CIDI DSM-III-R for both clinical and non-clinical interviewers is shown in Table I. A total of 34 (57.6%) subjects were classified as having no DSM-111-R diagnosis both by clinician and non-clinician interviewer's scoring. The most frequent life time diagnoses made by non- clinicians were: simple phobia (16.9%), organic brain syndrome definitely mild (15.3%), agoraphobia without history of panic disorders (13.6%) and somatoform pain disorder (13.6%). The most frequent life-time disorders made by clinicians were: Organic brain syndrome definitely mild (18.6%), dysthymia (11.9%), agoraphobia without history of panic disorders (11.9%), simple phobia (11.9%) and somatoform pain disorder (11.9%).

Those respondents who were from inpatients had the highest mean number 2.5 of life-time diagnosis per patient followed by those from outpatient and community who had mean number of life-time diagnosis per patient of 1.3 and 0.05, respectively.

The kappa values and percent agreement for presence of diagnosis and specific DSM-III-R diagnoses diagnosed with absolute frequency of five or more are shown in Table 2. Agreement for any diagnosis was 93.2% and kappa value 0.87. The lowes:'kappa value was for that of simple phobia (0.78). The highest kappa (1.0) was for dysthymia.

Table 1. Comparison of proportions of life-time DSM-III-R diagnoses by non-clinician interviewers using the Amharic version of the CIDI, Addis Ababa, Ethiopia, 1993 (n=59)

| **Diagnosis** | **By non-clinician number (percent)** | **By clinician number (percent)** |
|---|---|---|
| Total number of respondents | 59(100) | 59(100) |
| Organic brain syndrome | | |
| Definitely severe | 1(1.7) | 1(1.7) |
| Any depressive disorder | 15(25.4) | 15(25.4) |
| Dysthymia | 7(11.9) | 7(11.9) |
| Major depression single episode | 6(10.2) | 6(10.2) |
| Major depression recurrent | 2(3.4) | 2(3.4) |
| Bipolar disorder I (manic) | 3(5.1) | 4(6.8) |
| Bipolar disorder II (depressed) | 2(3.4) | 1(1.7) |
| Obsessive compulsive disorder | 1(1.7) | 1(1.7) |
| Panic disorder | 5(8.5) | 5(8.5) |
| Generalized anxiety disorder | 2(3.4) | 3(5.1) |

| | | |
|---|---|---|
| Any phobic disorder | 25(42.4) | 19(32.2) |
| Agoraphobia | 8(13.6) | 7(11.9) |
| Social phobia | 7(11.9) | 5(8.5) |
| Simple phobia | 10(16.9) | 7(11.9) |
| Somatization disorder | 4(6.8) | 3(5.1) |
| Somatoform pain disorder | 8(13.6) | 7(11.9) |
| Schizophrenia | 7(11.9) | 8(13.6) |
| Schizophrenic disorder | 4(6.8) | 3(5.1) |
| Schizophrenic form disorder | 3(5.1) | 5(8.5) |
| Substance abuse and dependence | 8(8.5) | 8(8.5) |
| Alcohol dependence | 3(5.1) | 3(5.1) |
| Alcohol abuse | 1(1.7) | 1(1.7) |
| Cannabis abuse | 1(1.7) | 1(1.7) |
| Amphetamine or similar acting sympathomimetic (chat) | 3(5.1) | 3(5.1) |

| | 2x2 clinician | kappa | % | agreement |
|---|---|---|---|---|
| | +ve | -ve | | |
| non clinicians +ve - | A | B | | |
| ve | C | D | | |
| Any diagnosis | 21 | 2 | 0.87 | 93.2 |
| | 2 | 34 | | |
| Organic brain syndrome | 10 | 0 | 0.88 | 97.0 |
| | 2 | 47 | | |
| Dysthymia | 7 | 0 | 1.0 | 100 |
| | 0 | 33 | | |
| Agoraphobia w/o history of painc disorder | 6 | 2 | 0.83 | 95.0 |
| | 0 | 32 | | |
| Social phobi | 5 | 2 | 0.81 | 95.0 |
| | 0 | 33 | | |
| Simple phobia | 7 | 3 | 0.78 | 92.5 |
| | 0 | 30 | | |
| Somatoform pain disorder | 0 | 1 | 0.92 | 97.5 |
| | 7 | 32 | | |
| Shizophrenic disorder | 3 | 0 | 0.82 | 95.0 |
| | 2 | 35 | | |

*The prevalence Estimate*: Of the 502 respondents, 15 (2.9%) interviews started could not be finished, and 28(5.6%) refusals to the interview were encountered. The socio- demographic characteristics of the sample

population are shown in Table 3. The sample consists of a larger percentage of males (51.2%), young adults (56.4% between 18-34 years), never married (42%), subjects with some form of education (82.3%), and unemployed (62.9%).

Table 3: Socio-demographic characteristics study subjects mental health survey using the Amharic version of the CIDI, Arada district, Addis Ababa, 1993.

| **Variable** | | **Number** | **Percent** |
|---|---|---|---|
| Total | | 502 | 100 |
| Sex | Male | 275 | 51.2 |
| | Female | 245 | 48.8 |
| Age | 18-24 year | 165 | 32.9 |
| | 25-34 year | 118 | 23.5 |
| | 34-44 year | 96 | 19.1 |
| | 45-55 year | 73 | 14.5 |
| | >55 year | 50 | 10.0 |
| Marital status | Married | 192 | 38.2 |
| | Widowed | 50 | 10.2 |
| | Separated | 22 | 4.4 |
| | Divorced | 26 | 5.2 |
| | Never married | 212 | 42.2 |
| Years of education | None | 89 | 17.7 |
| | 1-6 grade | 122 | 24.3 |
| | 7-11 grade | 117 | 23.3 |
| | 12 grade and above | 174 | 34.7 |
| Employment | Employed | 186 | 37.1 |
| | Not employed | 306 | 62.9 |

A total of 23 different specific DSM-III-R diagnoses were made as shown in Table 4. The most frequent specific DSM-III-R diagnoses were: organic brain syndroa definitely mild (14.1%), severe (4.4%), panic disorder (3.0%) and dysthymia (3.0%). Panic disorder, social phobia and somatoform pain .disorder had a prevalence of 3.0%, 2.6% and 2. % , respectively.

The specific DSM-III-R diagnoses made with lowest frequency were: schizophrenic disorder (0.2%), major depression, single episode, severe without psychotic features (0.2 % ) , major depression recurrent mild (0.2%), major depression recurrent (0.2%) major disorder mixed with psychotic features
(0.2%) and alcohol obuse (0.2%).

Table 4. life-time prevalence of specific DSM-III-R diagnoses obtained using the CIDI in an urban district of Ethiopia, 1993.

| **Diagnoses** | **Frequency percent** |
|---|---|
| Total population | 502(100) |
| **Organic brain syndrome Defnitely severe** | 22(4.4) |
| Schizophrenic disorder | 1(0.2) |

| | |
|---|---|
| Schizophrenic form disorder | 5(1.0) |
| Major depression single episode | 2(0.4) |
| Major depression single episode mild | 2(0.4) |
| Major depression single episode moderate | 2(0.4) |
| Major depression single episode sever W/O | |
| Psychotic features | 1(0.2) |
| Major depression recurrent | 1(0.2) |
| Major depression recurrent mild | 1(0.2) |
| Dysthymia | 15(3.0) |
| Bipolar disorder mixed with psychotic | |
| Feature | 1(0.2) |
| Bipolar disorder not otherwise specified | 3(0.6) |
| Generalized anxiety | 9(1.8) |
| Panic disorder with out agoraphobia | 4(0.8) |
| Panic disorder with agoraphobia | 1(1.2) |
| Agoraphobia without history | |
| Panic disorder | 15(3.0) |
| Social phobia | 13(2.6) |
| Simple phobia | 8(1.6) |
| Somatoform pain disorder | 10(2.0) |
| Alcohol dependence | 5(1.0) |
| Alcohol abase | 1(0.2) |
| Nicotine dependence | 2(0.4) |
| No diagnosis found | 366(72.9%) |

**Discussion**

*The Inter-Rater Reliability*: The result of this study indicates that the Amharic version of CIDI has good acceptance not only by clinician and non-clinician interview but also by respondents from different cultural backgrounds. The only major problem with it was its inappropriateness for the out-patient attenders who had difficulty in staying long enough to complete the relatively long interview. Furthermore, the fact that it could
be used by non-clinician interviewers with high level of agreement indicated the reliability of the in8tJUment. Also, the use of general practitieners (who are far more numerous in this country than the few available psychiatrists) that was made possible in the reliability study further enhanced the feasibility of the instrument. There are several characteristics of this study which limit comparability .of its results with those of other studies of inter-rater reliability of the CIDI. These include: (1) the use of non-mental health clinicians unlike elsewhere, (2) inclusion of respondents from the general population, (3) low base rate of
specific disorders and small number of interviewers used and (4) size and composition of the sample used.

Of the inter-rater reliability studies using CIDI, the multi-site field trial by Wittchen et al (11) is the most similar to our study, although there are some differences in methodology .In their study conducted in 18 centres around the world, the percent agreement for all diagnoses were over 90 % and the kappa value was greater than 0.90 except for three diagnoses. These are slightly higher than ours where percent agreement as low as 92.5% and kappa value as low as 0.78 were found.

In the specific DSM:III-R diagnosis, the Wittchen et al study found lowest kappa values for somatization (0.67), scbizophreniform disorders (0.89) and anorexia nervosa(0.80) while, in our case, the lowest kappa was found for simple phobia (0.78) and social phobia (0.81) excluding those diagnoses with frequency less than five. The only kappa value of our study which is higher than that of Wittchen is the one for dysthymia. which was 1.0. For all other diagnoses they found higher kappa values. Although low base rate is to be blamed in both these studies, this is particularly so in our study even for other specific diagnoses with a better kappa, probably explaining the difference.

Other studies which used CIDI very differently from ours reported lower kappa values and percent agreement. In test-retest reliability of the German version of the CIDI on RDC diagnoses and symptom levels in 60 psychiatric inpatients Semler found percent agreement ranging from 82-95 % and kappa from 0.19 to 0.81. In the specific disorders he found lower agreement for simple phobia (0.19), social phobia (0.44), panic disorder (0.40) and schizoaffective disorder depressed (0.47), while getting the highest degree ofconcordance in Alcoholism (0.79) and drug abuse (0.81) (II). Aleksandar found overall diagnostic kappa of 0.77 and for specific diagnosis, anxiety/phobic disorders (0.73), depressive disorders (0.78) and psychoactive substance abuse (0.83) in an interrater reliability while scoring ICD-10 research criteria check list or administrating CIDI interview( 12).

Although the finding of good inter-rater reliability of the Amharic version of CIDI in this study is partly attributable to attempts that have been made in improving the CIDI interview (11,13,14), it can also be the result of several characteristics of the methodology used. These are: (1) the administration of it in one session by two raters which may decrease source of variance occursing as a result of change in the patient status and recall problems in other studies which used two raters at two different times (12,13); (2) the susceptibility of the design to (and the difficulty of controlling) any violation to which interviewer pairs may be tempted to. Which is less of a problem for studies which conduct inter-rates reliability using two raters at two different
times; (3) the fact that our sample (unlike other studies) included milder outpatients and the general population and (4) the lack of audio visual technology for supervision and control of the interview (as practised elsewhere).

In this study the most frequent DSM-III-R diagnoses by non-clinicians were simple phobia (16.9%), organic brain syndrome definitely mild (15.3%), Agoraphobia without history of panic disorder (13.6%), and, by clinicians, they were organic brain syndrome definitely mild (18.6%), Dysthymia, agoraphobia without history of panic disorder, simple phobia and somatoform pain disorder each (11.9%). In the Wittchen et al (11) study, the most frequent diagnoses found were generalized anxiety (50.3%), major depression (31.0%), tobacco use disorder (30. 3 % ) and agoraphobia (30.1 % ) .In that study the commonest specific diagnoses which are different from ours comprise the more severe ones and are higher in proportion. A plausible explanation for this difference is their use of only inpatient and outpatient respondents, unlike in our study where respondents from the general population were included.

In the case of general anxiety , the reason for the difference may be the fact that although it was diagnosed in a larger frequency in our study it was excluded by the presence of other diagnoses of higher hierarchy. No mention of this was made in the Wittchen et al study. This is also evident in a similar study of the German translated CIDI which used inpatients only and found a higher

percent of serious psychiatric disorders, schizophrenia (30% ) and affective psychosis (18.3%) (11).

The Nigerian study by Guraje found lower estimates than ours, the commonest being somatoform pain disorder (4.7%), recurrent major depression (3.9%) and major depressive episodes 3.7% (15), probably due to the fact that unlike ours and the other two studies, it did not use subjects from a psychiatric hospital.

The Amharic version of CIDI core version 1.0 can be administered both by clinician and non clinician interviewers after a short period of the standardized training. It is also shown that the instrument has good reliability as confirmed by the high kappa and percent agreement levels between clinician and non- clinician interviewers for all diagnoses (kappa= 0.86 and percent agreement=93.2%) and wide range of DSM-111-R diagnoses (Kappa=0.78-1.0 and percent agreement 93.2%-100%). The acceptability and appropriateness of the instrument for the population in Addis Ababa is also satisfactory .

*The Prevalence Estimate*: In general, when considering the aggregate prevalence of specific disorders found in our study ( 13.1 % ) , excluding Alcohol or Nicotine abuse/dependence and organic brain syndrome (which is of doubtful validity) the result approximates to that of other studies using different instruments and methods: Prevalence estimates obtained from other studies include that of Kortman in an urban community in Addis Ababa (12%), Solomon in a rural community of Kembata and Hadeya (17.2%) and Giel and Van Luijk in small town in Western Ethiopia (8.6%) (16-18).

Any comparison with other studies or conclusions about prevalence of specific psychiatric disorders on the basis of the results of this study should be made with caution because of the design of the study in general and the size of the sample which is too small to accurately measure prevalence of specific disorders with prevalence below 1 % . Therefore, it will be appropriate to make comparison in prevalence rate only with those studies which used the same or closely similar design.

Many similar studies before the recent introduction of CIDI did not estimate prevalence of specific DSM-III-R disorders and community studies which used CIPJ are not available. Of the studies which closely resemble this one, the Epidemiologic Catchment Area study conducted in the U .S.A using DIS by lay interviewers at Lhree different sites made estimates which are similar to ours for aggregate rate of schizophrenia and schizophreniform disorders (1.1-2.02% ). They found higher estimates for major depressive episode (3.7-6.7%), phobia (7.8-23%), Alcohol abuse and dependence (11.5-15.7%), while finding lower estimates for somatization disorder (0.1% ), panic (1.4-1.5% ) and severe cognitive impairment (1.0-1.3%) (10). Lumping of other specific disorders as major depression and phobia may explain the higher rates while the higher estimate of somatization disorders may be the result of conversion into physical symptom of emotional problems which is common in the culture of most developing countries.

With respect to cognitive impairment, it is difficult to speculate on plausible explanation for the very high rate in our study because of the relatively small size of our sample.

The commonest DSM-III-R diagnoses found in the survey were, organic brain syndrome mild (14.1 %) and serve (4.4 %), agoraphobia without history Of panic disorder (3.0%) and dysthymia (3.0%) Although our sample size restricts the generalization of the study result to larger urban groups or any other population, the similarity in magnitude found with other studies in disorders like schizophrenia indicates specific disorders are as common in the studied population as elsewhere. Further studies are required on the prevalence of organic brain syndrome as reliable estimates could not be obtained using the Amharic version of the CIDI. The section of CIDI dealing with organic brain syndrome was developed from the Mini-Mental State Examination and assumes that the respondent has a fairly high level of formal education. Thus respondents who are not literates, for example, can be misdiagnosed as having organic brain syndrome. Literacy rates in Ethiopia are estimated at 25% .We have not measured literacy rate in this study but we assume that they are not very different from the figure quoted above.

In conclusion, we have found that the Amharic version of CIDI is reliable, acceptable, and feasible for use in mental health studies in Ethiopia. The most important problems found with the instrument are its length and irrelevancy of most questions in the substance abuse section to our situation. In addition to this, we have found that it can be administered at different settings; clinical (inpatients and outpatients) and the general population for clinical or epidemiological studies. A further study of parts of the CIDI (especially the sections on organic brain syndrome and use of drug) is recommended.

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