Prediction of Mental Illness Using Indian Astrology: Cross-Sectional Findings from a Prospective Study

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Abstract—Studies involving astrology and psychiatry have mostly found conflicting results, with astrology being criticized as unscientific and also lacking an objective assessment method for being scientifically tested. We tested the predictive ability of astrology using the Indian system in identifying mental illness on 150 subjects (75 having mental illness and 75 without). Four astrologers blind to the subjects interpreted the computer-generated birth chart data derived from subject’s gender, and date, time, and place of birth. Predictions were matched with the clinical details at first assessment. Kappa coefficients suggested a moderate agreement in the astrological prediction of lifetime mental illness ($k = 0.560, p = .001$) and a substantial agreement in predicting current state of mental illness ($k = 0.626, p = .001$), but with good inter-astrologer agreement only for lifetime mental illness. Viewed as a diagnostic test, astrology showed a good sensitivity and specificity for identifying mental illness of more than 75% for lifetime mental illness and more than 80% for the current mental illness. However, the study showed a poor match in predicting the symptom cluster and time of onset of symptoms. Overall, the evidence seemed to point toward Indian astrology (Vārāhamihira system) as practiced in the study modestly predicting the presence of mental illness. Caveats included differences in diagnostic concepts in the allopathic and astrological systems and the lack of a predefined level of astrological analysis which resulted in a poor match for symptom cluster and timing of illness. The findings in this study hence are at best tentative and need more extensive enquiry.

Keywords: Indian astrology—mental illness—prediction
Introduction

Astrology has been considered a science in India since the time of the Vedas (ancient Indian texts). For various reasons, astrological sciences have been reduced to mere assumptions and chance predictions in the modern era. The basis for astrological prediction often appears illogical, unscientific, and indemonstrable in today’s world. However, astrology still persists because it provides a coherent and comprehensive system of thought and gives an explanation for why each human being is different from all others. And astrology provides an explanatory model for the occurrence of illness (Hare 1977). Astrology forms one of the predominant treatment methods in India during mental illness. A study done in rural India by Kapur (1975) found that 59% of those with mental illness consulted traditional healers and practitioners of indigenous medicines. Out of these, astrology forms a major portion where the chanting of mantras and performing of certain rituals and prayers are a means of therapy. In ancient India, astrology was a good source for health promotion and a guide for preventive, curative, and other aspects of treatment which are mentioned in Ayurvedic (Traditional Indian Medicine system) literature (Sharma, Prasad, & Narayana 2007, Sharma, Subhatka, & Narayana 2007).

Almost all variants of astrology implicate the ill effects of the moon on mental illness. Evidence supports the impact of the lunar cycle on the physiology of animals and humans, in particular fertility, menstruation, and birth rate (Zimecki 2006). Studies involving epilepsy, which is seen as a mental illness in astrology, have found a clustering of seizures during the full moon (Polychronopoulos et al. 2006, Baxendale & Fisher 2008) However, one study by Benbadis et al. (2004) found only pseudoseizures to have such an association. With regard to lunar cycles and violence, Owen et al. (1998) found a positive correlation among inpatients, and another study by Hicks-Caskey and Potter (1991) found more misbehavior in developmentally delayed institutionalized women on days of the full moon. Behavioral changes were greater in those with psychotic illnesses as compared with other mental illness during the full moon (Barr 2000). However, Snelson (2004) criticizes these inferences in a study that found a correlation between higher belief scores and the attribution of behavioral changes in the lunar cycle.

Looking at birth charts using the Western astrology system, the Carlson Experiment did not find a match between people’s acknowledgment of personality profile by psychological assessment and astrologers’ predictions (Carlson 1985). A more recent study by Wyman & Vyse (2008) with Neo Five versus computer-generated astrological profile (as per Western astrological principles) found more of a chance association. On the other
hand, a study by Abdel-Khalek and Lester (2006) who looked at sun signs (Western astrology) found higher anxiety scores in Scorpio, Aquarius, Gemini, Pisces, and Capricorn, and subjects with lowest scores in Libra, Taurus, Leo, and Cancer signs. Natal chart interpretations (analyzing zodiacal signs, interactions among planetary qualities as per Western astrology, and occurrence of full and new moon dates, on the dates of birth) have also shown some support for key astrological postulates with sun signs with introversion, and that Mars, a symbol of aggression in outgoing signs, is more often found in schizophrenics than normal (Ohaeri 1997). Ertel (2009) in his critical appraisal of Carlson’s study had found many drawbacks regarding the methodology as well as analysis, including the tool used (California Personality Inventory), the analysis done on a piecemeal basis, and small effect sizes for the findings. Also, the author noted that the design of the study was unfair as it used a three-choice format over a two-choice format for discrimination.

The continuing problem with astrological predictions is that people may tend to associate themselves with profiles that are better than they are or that make them feel better. Although the practice of astrology is increasingly seen to be absurd, many believe that this is only because most of its practitioners are incompetent or fraudulent. This might still be the truth.

The center of this study has the same catchment area as in the study by Kapur (1975), where health-seeking is through astrologers for mental illness. Hence, it is of the utmost importance to understand this cultural influence while dealing with illness. While studies are restricted to the effect of the moon (lunar cycle) on suicide (Sharma & Thakur 1980) and emergency admissions (Zargar et al. 2004), no studies seem to have been done in India on how astrology as a whole concurs with the manifestation of a psychiatric illness. Hence, it was felt that an investigation into the detection of mental illness and the prediction of outcomes between the allopathic and astrological systems would be beneficial in helping us to understand the two perspectives better. Consequently, the present investigation was planned which also attempts to make the assessment a more objective one, using comprehensive knowledge of astrology and ensuring adequate blinding of subjects from astrologers and vice versa.

**Brief Introduction to Indian Astrology**

Mythological claims are that Indian (Vedic/Hindu) astrology originated from Brahma (the creator of the world as per Hinduism) and was brought to earth by the sages. 18 such works of the sages were then compiled by Vārāhamihira in the Fifth Century AD to form the *Brihatjataka* (Great
Treatise on Birth History/charts, which forms the major source of reference for interpretation in Indian astrology.

The foundations for predictions about an individual lie in the plotting of the birth chart. The zodiac is an imaginary belt in the sky in which the planets travel. The zodiac is divided into 12 equal parts of 30° each which form the Rashi (or the zodiac sign). According to this system, there are 9 planets that have influence on the earth (and are identifiable from the earth). In addition to the 5 planets up to Saturn, the Sun and Moon are also taken as planets. In addition, there are two imaginary nodal points (at 180° from each other) called Rahu and Ketu, which are referred to as the shadow planets. The Zodiac is also divided into 27 constellations of 13°20´ each based on the position of the star, and each constellation is further subdivided into 4 quarters. The planets are plotted in reference to their position in the zodiac with reference to the position of the birth star as viewed from earth (hence this system is called sidereal). The time of birth determines the zodiac sign for the individual which can change within a day based on the position of the Sun. Depending on the need, the birth chart can have accessory charts that plot the planets into smaller divisions within the Zodiac, in order to reach a higher accuracy. Planets are assigned strengths based on the constellation they are in, the relative position from the zodiac sign, as well as based on the position of other planets in the Zodiac. While this forms the static chart at birth, the dynamic component is analyzed by the operational periods of the planets (which varies from 6 years to 20 years) across a timeframe of 120 years. Each operational period can be further divided into smaller sub-operational periods based on the same ratio to reach timeframes of months, weeks, days, hours, minutes, and even seconds as per the level of accuracy required. Alternatively, prediction for the day can be given based on the planetary position for that day compared with the position in the birth chart.

The Indian (Vedic/Hindu) and Western astrologies differ in various aspects of interpretation. Indian astrology uses zodiac signs based on the position of the birth star and the moon’s transit, as compared with the sun’s transit which is the concept followed in Western astrology. Each house in the birth chart has its role in interpretation, irrespective of whether it houses a planet. Movement of the planets across the Zodiac as well as planetary and sub-planetary periods are used in interpretation rather than just using transit, in Indian astrology. And the interpretation involves a complex interplay between planets within the house, opposite houses, the ruling planet of the house, as well as the birth star, the current position of the planets, their strengths and weaknesses, and some of the supplementary birth charts (which assess the influence of familial factors, effects of residence, education, spirituality, wealth, etc.) are looked into for prediction. Thereby,
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Prediction in Indian astrology involves interplay between various components of the birth chart as well as the planetary movements across the Zodiac. To understand the concept in a simplified way, the birth chart indicates some degree of susceptibility for the illness, while the planetary movements and periods indicate the likelihood of its expression during the time period. With regard to prediction of mental illnesses, the positions of moon, Saturn, and the shadow planets Rahu–Ketu play a major role. The ruling planets of the houses, the supporting and opposing nature of planets, their original position at birth, all are taken into consideration while making a prediction. The system also involves a minimum knowledge of Ayurveda for use of terminologies in predicting health and illness. A fair outline about principles used in predicting mental illness can be read in the articles by Tantri (2007) and Chauhan (2014).

Variants within Indian Astrology

Astrology is not practiced in the same way by all followers of the Indian system. While basic steps in interpretation remain the same, there are
two other versions of plotting birth charts that are in vogue. The Lal Kitaab uses a fixed-house system no matter where the ascendant is. The interpretation guidelines are modified accordingly to suit simpler analysis and to recommend simple remedies for problems. This came from a mixture of the Vedic and Persian elements of astrology in the 19th Century by Shri Giridhari Lal Sharma in Urdu (Shrimali 2013). The other birth chart plotting method is the Krishnamurthi Paddathi (KP system) which appeared in the 1950s and was founded by K. S. Krishnamurthi, a master astrologer from southern India. The KP system incorporates finer aspects of Western astrology and astronomical findings. It takes into account the elliptical pathway of the Earth’s revolution which places the cusps at slightly different angles, rendering the zodiac sign’s extent of variation from 27° to 33°. In certain scenarios, this can lead to two cusps falling in the same house where the planets in such a house fall into two zodiac signs at the same time, explaining the dual and contradictory effects seen in some horoscopes. This has helped to solve some cases where predictions with traditional Vedic astrology were flawed by simplifying the analysis, thus bypassing the complex and often confusing considerations required when using Vedic astrology (Krishnamurthi 1996, AstroSage no date).

In addition to these birth-chart plotting systems, there are also many variants in analyzing and predicting events based on the already indexed transit charts. These are given by various Rishis (sages / saints) and are called Nādi. Examples include Brighu Nandi Nādi, Kashyap Nādi, Hora Nādi, Chandrakala Nādi, etc. (Pandey 2013). To understand the difference, one can compare Nādi to different checklists or reference criteria to make a diagnosis, rate the severity, or predict an outcome. In Nādi, a collection of reference birth chart or planetary positions with proven predictions is used for interpretation. However, this study did not involve going beyond the basic principles, and the participating astrologers used only the information provided in the birth chart.

**Courses in Indian Astrology**

While there are innumerable courses available (both professional and correspondence) varying from certificate, diploma, degree, to even doctorate, a reliable level of qualification can be the degree course as it enables one to be a teacher in astrology. The bachelor’s degree is known as Vidwan in Jyothish (Scholar / Expert in astrology) and is a three-year course involving theoretical as well as practical training in astrological methods. In addition to the curriculum, students are expected to be knowledgeable in certain Indian scriptures including the Nithi Shastras (law and society matters) and Ayurveda (health and treatment of illnesses), and are trained in
spiritual practices / meditation. A degree is awarded once interpretations are consistently accurate, which often involves working as an apprentice under the instructor (personal communication by astrologer Vidwan Shivaprasad Tantri, May 2009).

**Objective**

The objective of our study was to determine the predictive ability of Indian astrology (also known as Vedic astrology) in identifying the presence of mental illness based on birth chart and planetary position. We hypothesized that Indian astrology will not be able to predict, that is a Null Hypothesis was used. We aimed at making an objective assessment of the prediction and designed questions for astrologers appropriately. The four predictions relevant to this article include: presence or absence of mental illness, currently ill or healthy, month and year of onset of illness (3-month margin), and core symptoms of illness if any (arbitrary 3-symptom match was taken as agreement).

**Methodology**

**Participants**

This was a prospective cohort study that followed up subjects for 6 months, and was carried out at one of the medical colleges along the west coast of India, a tertiary referral center in the region, between February 2009 and October 2009. The study was approved by the Institutional Ethics Committee of the author’s university. Samples consisted of 75 persons with mental illness and 75 age- and sex-matched normal persons (without mental illness). Written informed consent was obtained from all the study participants. The mental illness group included subjects attending inpatient and outpatient care at the Department of Psychiatry, and the normal subjects included relatives of patients as well as volunteers from the community. The astrologers were blind to the study groupings. The inclusion criteria for the subjects included knowledge of their accurate time, date, and place of birth and willingness for regular followup for the following six months. Those unsure about their birth timing, not willing to be followed up, having an organic mental disorder, mental retardation, or in whom diagnosis was unclear were excluded from the study.

**Tools**

Socio-demographic and clinical data were collected using a semi-structured pro forma, designed for the study. To make psychiatric diagnoses, the Mini International Neuropsychiatric Interview (MINI) Plus 5.0 was used. The
MINI Plus 5.0 is a relatively brief and widely used structured interview for major Axis 1 psychiatric disorders according to DSM IV and ICD 10. It has an acceptably high validity and reliability. It has the facility for investigating substance use disorders and for symptoms due to organic causes (Sheehan, Lecrubier, & Sheehan 1998). The author was trained to use this instrument. The Self-Reporting Questionnaire (SRQ)-24 was used for normal subjects to rule out psychiatric conditions. The SRQ is a self-reported questionnaire developed for the World Health Organization (WHO) to screen mental illness in primary caregivers in developing countries and it also screens for psychotic symptoms (Beusenburg & Orley 1994). The scale has a fairly good sensitivity and specificity at a cutoff of <7 for non-psychotic symptoms while the presence of even a single affirmation of psychotic symptoms would mean a need for further evaluation (Chuncholikar 2004). This scale has been validated and is found to be reliable for screening the Indian population (Patel et al. 2008).

Procedure

Socio-demographic and clinical data were obtained from the study subjects using the semi-structured pro forma. All those with mental illness were evaluated on the MINI Plus 5.0, and the normal subjects on the SRQ. After enrollment, the subjects were assigned a unique number from 1 to 150. To maintain homogeneity in birth-chart plotting, computer-generated birth-chart, operational, and inter-operational periods were plotted using Horoscope Explorer Version 4.0 software (Horoscope Explorer 4.0 2007). The birth charts in this study were plotted on the basic Vārāhamihira system as this is the most commonly used plotting system. A sample birth chart with planetary periods used in the study is given in Appendix 1. Each person’s birth data, identified now by the allotted random number, was the only information given to the astrologers. All 4 astrologers selected for interpretations in the study had a Qualified Bachelor’s Degree in Indian Astrology, following the same Panchaanga (Indian calendar) for interpretations, with a minimum of 5 years of experience in interpreting birth charts and planetary position effects, and had publications in the form of astrological books, journal articles, or magazine articles. The astrologers in this study used the principles of Vedic astrology as compiled by Vārāhamihira for interpretation, as it is the most sophisticated and widely used compared with other Indian systems.

Distribution of birth charts was done as shown in Table 1. Ten birth charts were given to all astrologers to check for inter-astrologer agreement. Interpretations of the astrologers were matched with actual clinical findings. The terminologies used to describe symptoms and illnesses by the
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Astrologers were from Ayurveda (the ancient Indian medical system using plants and naturally available products for treatment) as well as common words to describe the same in Kannada (a language written and spoken in Southern India). Hence a textbook on Ayurveda written in English and authored by Udupa (2004) and a Kannada-to-English dictionary (Bharadvaj 2005) were used, which gave parallel meanings in allopathic medical practice and English for these terminologies.

**Statistical Analysis**

Data analysis was done using SPSS for Windows Version 13. Statistical testing was done with the hypothesis being taken as an agreement problem, and a Kappa coefficient was used to test significance. Inter-astrologer agreement was tested using weighted Kappa (Viera & Garette 2005). In addition, interpretation was done viewing astrology as a diagnostic test and analyzed in terms of sensitivity and specificity.

**Results**

272 subjects with mental illness and 120 without mental illness were screened; of them 197 persons with mental illness and 45 normal subjects declined participation, due to lack of interest, fears regarding confidentiality, magico–religious concerns, or because they could not provide reliable details regarding their date, place, and time of birth. A total sample of 150

| Astrologer | Distribution of birth charts numbered from 1–100 | Distribution of birth charts numbered from 101–150 | Total birth charts interpreted |
|------------|---------------------------------------------------|---------------------------------------------------|-------------------------------|
| Astrologer A | Numbers ending with 1, 4, or 7 + Numbers ending with 0 | Random 8 numbers | 38 + 10 common |
| Astrologer B | Numbers ending with 2, 5, or 8 + Numbers ending with 0 | Random 7 numbers | 37 + 10 common |
| Astrologer C | Numbers ending with 3, 6, or 9 + Numbers ending with 0 | Random 7 numbers | 37 + 10 common |
| Astrologer D | Remaining 28 numbers | Random 28 numbers | 28 + 10 common |
individuals was recruited for the study, with 75 members having some mental illness and 75 with no mental illness.

Table 2 gives the characteristics of the two groups at intake. The groups were comparable with respect to gender and to age (mean age 32.37 (±12.9) in the mental illness group and 32.52 (±12.6) in the group without mental illness). Two-thirds of the sample were males; 52 (69.3%) of the 75 in the mental illness group and 48 (64%) in the without mental illness group. Distribution of diagnoses in the mental illness group (N = 75) were as follows: Commonest diagnosis was of depression/adjustment disorder.

### Table 2

Distribution of Socio Demographic and Clinical Variables

| Variables                      | Mental illness group | Normal group | Statistics     |
|--------------------------------|----------------------|--------------|----------------|
|                                | N = 75 (%)           | N = 75 (%)   |                |
| Mean age                       | 32.37 (±12.9)        | 32.52 (±12.6)| t = .070, df = 148, p = .944 |
| Gender                         |                      |              |                |
| Male                           | 52 (69.3%)           | 48 (64%)     | X² = .480, df = 1, p = .488 |
| Female                         | 23 (30.7%)           | 27 (36%)     |                |
| Clinical Diagnosis (MINI Plus) |                      |              |                |
| Substance use                  | 2 (2.7%)             |              |                |
| Psychosis                      | 15 (20%)             |              |                |
| Depression/adjustment          | 24 (32%)             |              |                |
| Mania                          | 17 (22.7%)           |              |                |
| Anxiety disorders              | 16 (21.3%)           |              |                |
| Others                         | 1 (1.3%)             |              |                |
| Mean GAF score                 |                      |              |                |
| At intake                      | 42.88 (±16.3)        |              |                |
| Mean SRQ score                 |                      |              |                |
| At intake                      | —                    | 1.05 (±1.4)  |                |
| Strength of belief in astrology|                      |              |                |
| 0–25%                          | 25 (33.3%)           | 12 (16%)     | χ² = 10.487, df = 3, p = .015* |
| 26–50%                         | 13 (17.3%)           | 14 (18.7%)   |                |
| 51–75%                         | 9 (12%)              | 4 (5.3%)     | p = .015*      |
| 76–100%                        | 28 (37.3%)           | 45 (60%)     |                |

*p < 0.05
TABLE 3
Agreement Analysis between Clinical and Astrological Findings Regarding Any Mental Illness and Current Mental Illness ($N = 150$)

| Variable                  | Astrology yes | Astrology no | Kappa value | Significance |
|---------------------------|---------------|--------------|-------------|--------------|
| Life time mental illness  |               |              |             |              |
| Clinical yes              | 58            | 17           | 0.560       | $p = 0.001^*$|
| Clinical no               | 16            | 59           |             |              |
| Current mental illness    |               |              |             |              |
| Clinical yes              | 59            | 14           | 0.626       | $p = 0.001^*$|
| Clinical no               | 14            | 63           |             |              |

*$p < 0.05$

24 (32%), followed by mania 17 (22.7%), anxiety disorders 16 (21.3%), psychosis 15 (20%), substance use 2 (2.7%), and others 1 (1.3%). Mean SRQ score in the normal subjects group was 1.05 (SD 1.4). A significant difference was observed between the two groups in terms of their belief regarding astrology ($\chi^2 = 10.487, p = 0.015$).

The agreement rates using the Kappa coefficient were calculated for the clinical impression and the astrological prediction about lifetime occurrence of mental illness and present existence of mental illness. A moderate agreement in the prediction of presence of mental illness ($k = 0.560, p = .001$) and a substantial agreement in predicting the current state of illness ($k = 0.626, p = .001$) was found (Table 3).

The inter-astrologer agreement done using 10 birth charts (clinically 4 had mental illness and 6 were normal subjects), found a fair agreement between the astrologers in predicting the presence of mental illness (weighted Kappa 0.2667, significance 0.019*). A non-significant negative agreement (weighted Kappa –0.111, significance 0.805) was found among them for predicting current illness (Table 4).

The comparison of symptom clusters generated in the clinical interview with the ones predicted by the astrologers showed a match of only 26 out of 75 (34.6%) in the mental illness group and 32 out of 75 (42.6%) in the no mental illness group. In the no mental illness group, the symptoms mentioned in the SRQ were matched with ones mentioned by astrologers. The predictions for the time of onset of symptoms (even with a 3-month margin) were also a poor match with 21 out of 75 (28%). Inter-astrologer
agreement for onset of illness and symptom cluster could not be measured due to inadequate data.

While viewing astrology as a diagnostic test, it shows a fairly good sensitivity as well as specificity in identifying lifetime mental illness (>75%) as well as presence or absence of mental illness at the current time (>80%). The ability of astrologers to correctly predict that a person is suffering from mental illness (positive predictive value) as well as the ability to predict that a person is not affected with a mental illness (negative predictive value) is also promising in both the contexts (Table 5).

**Discussion**

The primary findings in the study suggest that astrology as a tool is a fairly good predictor of mental illness. This study found a moderate agreement in the prediction of the presence of mental illness and substantial agreement with regard to prediction of the current state of illness. The fairly high degree of sensitivity as well as specificity when astrology is viewed as a diagnostic test indicates that the birth chart could possibly be looked at for these predictions. The lifetime risk is basically derived by the astrologers based on the planetary positions in the birth chart. The current status of illness is usually interpreted based on the current planetary position and planetary sub-periods (called *dashas* and *antardashas* in Indian astrology) where unfavorable planets would result in symptoms (Tantri 2007, Chauhan 2014). Studies involving the birth chart using Western astrology that looked at personality profiles found no more than chance association in the predictive ability of the astrologers (Carlson 1985, Wyman & Vyse 2008). One study that looked at the association of certain planets and sun signs with schizophrenia gave only partial support to astrological principles (Ohaeri 1997). Among the studies done so far, only Carlson’s experiment

| Variable                  | Weighted Kappa value | Significance |
|---------------------------|----------------------|--------------|
| Presence of mental illness| 0.2667               | 0.019*       |
| Currently ill             | −0.111               | 0.805        |

*p < 0.05
(1985) had involved astrologers and had found that the astrologer’s claim of even 50% accuracy was an exaggeration. The results had actually shown one-third accuracy. A reanalysis of the same data in the appraisal given by Ertel (2009) had actually shown a small significance and opined the study analysis to be biased and inclined toward proving the preset agenda of astrology as bogus. In contrast, the current study has found a moderate agreement which is possibly the best obtained through research so far. This study also addressed Ertel’s (2009) criticism of Carlson’s unfair study design by having a two-choice discrimination (yes/no) for the questions on lifetime and current mental illness. However, this finding needs to be interpreted with caution because a subsequent analysis showed that inter-astrologer agreement (among the participating astrologers) was not perfect. Hence there is still a possibility of this being a chance association.

On the other hand, astrology clearly failed to meet agreement criteria in the onset of illness and the symptom cluster match. The failure of indicating the correct time of onset, but with matching of the current mental status, raises the doubt that it could be just a chance association. If one could tell the current status based on the planetary periods, then one should ideally be able to correctly predict the onset. However, from the astrologer’s viewpoint, the accuracy of a prediction depends on the depth of analysis made. Planetary periods vary from 6 years to 20 years, and the 1st level of planetary subperiods vary from a few months to a few years. Each of these subperiods can be analyzed with further subperiods until it can come down to minutes and seconds. Each subperiod signifies fluctuations within an illness period based on whether the subperiod for that individual is favorable or adverse. Such an extent of analysis would invariably require a lot of

| Variable                  | Sensitivity | Specificity | Positive predictive value | Negative predictive value | Area under ROC curve* |
|---------------------------|-------------|-------------|---------------------------|----------------------------|-----------------------|
| Life-time mental illness  | 77.3%       | 78.7%       | 78.4%                     | 77.6%                      | 0.781                 |
| Current illness           | 80.8%       | 81.8%       | 80.8%                     | 81.8%                      | 0.813                 |

* Area = 1 would indicate ideal test with 100% sensitivity and 100% specificity.
time and is practically not feasible (personal communication Shivaprasasad Tantri, 2009; Sethi 2007). This could explain the inter-astrologer difference when two of the astrologers went further in their analysis for predictions, while the other two stuck to the information on the chart provided. The same argument could also explain why the astrologers failed to pinpoint the onset of illness while still being able to predict more accurately whether the individual was currently ill. While this argument may still be valid, with the current data it can only be stated that onset could not be predicted accurately by the system used by the participating astrologers.

The analysis of predictions like the symptom cluster often puts across possibilities of bias due to the conceptual difference in the classification of illness in the two systems. A person with an inclination / belief in astrology is likely to interpret it as an identifying feature, whereas others may disagree. A similar criticism was made by Crowe (1990), who said that people tend to internalize astrological reports when given in vague terms and then accept them as real. The author attempted to minimize that impact by keeping the astrologer and the subjects blind to each other, and also referred to an Ayurveda textbook (as terminologies used in astrology to describe illnesses are the same) that links illnesses with allopathic classifications. However, the open-ended nature of the question, the non-specific nature of some of the psychiatric symptoms, the vagueness with which some of the terminologies are used by the astrologers, and also the arbitrary criteria of the three-symptom match itself, questions the method adopted to test it. Getting an exact fit for diagnostic categories between allopathic classification and astrological classification is a challenge that needs to be dealt with to draw reliable conclusions. Alternatively, a diagnosis made as per Ayurveda might be a better choice to objectively test.

The present study had 4 astrologers with similar theoretical backgrounds predicting, hence it may be expected that their agreement would be good. From the results, the inter-astrologer agreement was not good except for prediction of lifetime occurrence of mental illness. This type of inconsistency brings out the vagueness involved in the interpretation and is highlighted in the Carlson study (1985). However, the sample size used for inter-astrologer agreement was inadequate (10 (7%), \( N = 150 \)). Ideally, to derive a firm conclusion about inter-astrologer agreement, the sample size required would be the same as the study when analyzing it as an agreement problem. This limitation alllows the decision to accept or reject the original study hypothesis.

The sample size in our study was comparable with previous studies mentioned in the Introduction. The subjects in the mental illness group were comparable with the subjects in the no mental illness group in terms of age
and gender. The distribution of diagnoses was representative of the usual pattern seen in the hospital where the study was conducted. However, there was a relative paucity of substance-use disorders in the sample. This might not be relevant, as the present study, by design, addressed the larger issue of mental illness versus normalcy more specifically than individual diagnoses. The belief in astrology was higher in the normal group as compared with the mental illness group. This could be because of the hospital catchment area being larger where the belief might not be strong. The higher belief in the local population is reflective of the persisting trend seen from the study by Kapur (1975).

The blinding of astrologers as well as of the subjects makes the study unique. In the previous studies using birth charts (Western astrology), there had always been contact between subjects and astrologers or their interpretations for checking accuracy. Both would be adding to the bias (Carlson 1985, Wyman & Vyse 2008). Furthermore, it needs to be noted that none of the astrologers took any remuneration for their work and being academically oriented believed in scientific testing of their predictions. Their participation was of their own free will and out of curiosity to know the results of this investigation untainted by expectation of pecuniary benefits.

The study finds strength in its adequate sample size, testing using a comprehensive system of astrology rather than just components, blinding of the subjects and astrologers, and designing it to assess objectively at least some of the predictions. Astrological analysis can be conceptualized under prediction of the state / event and the precision of its occurrence. This study objectively tested the former but could not control the latter. We recommend the use of the Indian astrology system based on the principles of Vārāhamihira (as a comprehensive system) for future studies rather than limited and piecemeal interpreting systems. The limitations that need to be worked on include: having a single astrologer or ones with good inter-astrologer agreement, a common disease concept or a study design for objectively assessing symptoms and illness, a defined depth of astrological analysis, and a better tool for capturing lifetime mental illness in the ‘normals’ group.

**Conclusion**

A sizable number of people believe in astrology despite controversies regarding its veracity, and these approaches tend to be sought and practiced in pari passu with the use of allopathic psychiatric treatments in the community. As a parallel system of thought, it continues to interest researchers applying modern scientific methods to evaluate it. Theoretical differences in conceptualizing mental illness continue to produce difficulties
in scientifically testing all aspects of prediction by astrological means. Overall, on completion of the present exercise, the evidence seems to point toward astrology as practiced in the study modestly predicting the presence of mental illness. Future studies can standardize the analysis to test the precision of occurrences.

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**APPENDIX 1**

**Sample Horoscope Data Provided to the Astrologers**

See 7 horoscope charts below.
Appendix 1

Date of Birth: 12 November 1976 Friday
Time of Birth: 05:43 AM
Place of Birth: Bangalore (Karnataka), India
Latitude: 13.0N Longitude: 77.35E
Ayanmash: NC Lahiri 23:32:0
Local Mean Time: 05:23:20
Sidereal Time: 8:48:20
LT Correction: -19:40
Obliq: 23.4

Avkahada Chakra

| Lagna | Libra |
|-------|------|
| Lagna Lord | Venus |
| Rashi | Gemini |
| Rashi Lord | Mercury |
| Nakshatra | Punarvasu |
| Nakshatra Lord | Jupiter |
| Charan | 1 |
| Tithi | Panchami Krishna |
| Paya | Silver |
| S.S. Yoga | Sadhya |
| Karan | Taitika |
| Varna | Vaishya |
| Tatwa | Jala |
| Vashya | Manav |
| Yoni | Cat(F) |
| Gana | Deva |
| Nadi | Aadi |
| Nadi Pada | Aadi |
| Vihaga | Pingala |
| First Letters | Kay, Ko, Haa, Hee |
| Sun Sign | Scorpio |
| Decanate | 2 |

Ghatak(Malefics)

| Rashi | Kumbh |
|-------|------|
| Months | Ashad |
| Tithi | 2, 7, 12 |
| Day | Monday |
| Nakshatra | Swati |
| Prahar | 3 |
| Lagna | Kark |
| Yoga | Parigha |
| Karan | Kaulava |

Favourable Points

| Lucky Numbers | 3 |
| Good Numbers | 1, 2, 3, 9 |
| Evil Numbers | 4, 5, 8 |
| Good Years | 12, 21, 30, 39, 48 |
| Lucky Days | Sat, Wed, Fri |
| Good Planets | Sat, Merc, Ven |
| Evil Planets | Mars, Jupiter |
| Friendly Signs | Gem Cap Aqua |
| Good Lagna | Cap, Ari, Gem, Leo |
| Lucky Metal | Silver |
| Lucky Stone | Diamond |
| Lucky Time | Sunrise |
| Lucky Direction | South-East |
### Planetary Positions at Birth Time

| Planets | Rashi       | Degrees | Nakshatra | Nak Lord | Pad | Dir  | Dignity |
|---------|-------------|---------|-----------|----------|-----|------|---------|
| Ascendant| Libra       | 17:24:06| Swati     | Rahu     | 4   | -    | -       |
| Sun     | Libra       | 26:12:24| Vishakha  | Jupiter  | 2   | Direct| -       |
| Mercury | Libra       | 28:56:15| Vishakha  | Jupiter  | 3   | Direct| -       |
| Venus   | Sagittarius| 03:31:25| Moola     | Ketu     | 2   | Direct| -       |
| Mars    | Scorpio     | 00:05:03| Vishakha  | Jupiter  | 4   | Direct| Own House |
| Jupiter | Taurus      | 03:27:04| Krittika  | Sun      | 3   | Retro | -       |
| Saturn  | Cancer      | 23:06:40| Ashlesha  | Mercury  | 2   | Direct| -       |
| Moon    | Gemini      | 21:39:00| Punarvasu | Jupiter  | 1   | Direct| -       |
| Rahu    | Libra       | 08:59:56| Swati     | Rahu     | 1   | Retro | -       |
| Ketu    | Aries       | 08:59:56| Ashwini   | Ketu     | 3   | Retro | -       |
| Uranus  | Libra       | 14:42:35| Swati     | Rahu     | 3   | Direct| -       |
| Neptune | Scorpio     | 19:16:44| Jyestha   | Mercury  | 1   | Direct| -       |
| Pluto   | Virgo       | 19:28:52| Hasta     | Moon     | 3   | Direct| -       |

### Lagna Kundali

|   | 1 | 2 | 3 |
|---|---|---|---|
| 12| Ket| Jup| Moon|
| 11|     |   | Sat|
| 10|     |   |   |
| 9 | Ven| Mar Nep| Asc Sun Mer Rah Ura|
|   | 8 | 7 | 6 | Plu|
### Saptamamsha | Children | Navamsha | Spouse
---|---|---|---
12 | Sun Mer | Asc | Mer Ket Plu
11 | Asc | Jup Ura | 
10 | Ura | Sat | 
9 | Ven Rah | Rah Nep | 
8 | Jup Moon | 
7 | Nep | 
6 | 

### Dashamamsha | Profession | Dwadashamamsha | Parents
---|---|---|---
12 | Asc | Ura | Jup Nep
11 | Jup Ura | Asc Sat Plu | 
10 | Ven Moon Nep | Moon | 
9 | Rah | Ven Rah | 
8 | Plu | 
7 | Sat | 
6 | 

### Children
- Sun Mer
- Asc
- Jup Ura
- Ura
- Ven Rah
- Jup Moon
- Nep

### Profession
- Sun Ket
- Mer Mar
- Moon
- Ven Rah
- Plu
- Sat

### Spouse
- Asc
- Moon
- Sun Ven
- Mer Ket Plu
- Jup Ura
- Sat
- Rah Nep

### Parents
- Ura
- Asc Sat Plu
- Jup Nep
- Mer Mar
- Moon
- Ven Rah
- Plu
- Sun
- Mer
### Bhav Table

| Bhav | Bhav Begins | Mid Bhav |
|------|-------------|----------|
| 1    | Libra       | Libra    |
| 2    | Scorpio     | Scorpio  |
| 3    | Sagittarius | Sagittarius |
| 4    | Capricorn   | Capricorn |
| 5    | Aquarius    | Aquarius |
| 6    | Pisces      | Pisces   |
| 7    | Aries       | Aries    |
| 8    | Taurus      | Taurus   |
| 9    | Gemini      | Gemini   |
| 10   | Cancer      | Cancer   |
| 11   | Leo         | Leo      |
| 12   | Virgo       | Virgo    |

### Bhav Chalit Chakra

| Bhav 1 | Bhav 2 | Bhav 3 |
|--------|--------|--------|
| Ket    | Jup    | Moon   |

### Chandra Kundli

| Bhav 1 | Bhav 2 | Bhav 3 |
|--------|--------|--------|
| Ket    | Jup    | Moon   |
| Sat    |        |        |
| Sat    |        |        |
| Asc Sun Mer Mar Rah Ura | Asc Sun Mer Rah Ura | Plu |
| Ven    | Nep    | Plu    |
| Asc Sun Mer Mar Rah Ura | Asc Sun Mer Rah Ura | Plu |
| Ven    | Mar Nep| Plu    |
### Sun Based Upagrahas

| Upagraha  | Lord  | Rashi   | Degrees | Nakshatra  | Charan |
|-----------|-------|---------|---------|------------|--------|
| Dhuma     | Mars  | Pisces  | 09:32:24| U.Bhadra   | 2      |
| Vyatpata  | Rahu  | Aries   | 20:27:36| Bharani    | 3      |
| Parivesha | Moon  | Libra   | 20:27:36| Vishakha   | 1      |
| Indrachapa| Venus | Virgo   | 09:32:24| Uttara     | 4      |
| Upaketu   | Ketu  | Virgo   | 26:12:24| Chitra     | 1      |
| Bhukampa  | Capricorn | 16:12:24|         |           |        |
| Ulka      | Aquarius | 26:12:24|         |           |        |
| Brahmadanda| Taurus | 02:52:24|         |           |        |
| Dhwaja    | Cancer | 22:52:24|         |           |        |

### Weekday Based Upagrahas (Parashara)

| Upagraha  | Rashi       | Degrees | Lord | Nakshatra | Charan |
|-----------|-------------|---------|------|-----------|--------|
| Kalabela  | Sagittarius| 01:50:23| Jupiter | Moola | 1      |
| Paridhi   | Capricorn  | 15:32:19| Saturn  | Sravana | 2      |
| Mrityu    | Aries      | 27:16:26| Mars   | Krittika | 1      |
| Ardhaprahara| Gemini | 10:59:22| Mercury | Ardra | 2      |
| Yamakantaka| Cancer | 22:09:40| Moon | Ashlesha | 2      |
| Kodanda   | Virgo      | 06:33:54| Mercury | Uttara | 4      |
| Gulika    | Libra      | 20:39:54| Venus  | Vishakha | 1      |
| Mandi     | Scorpio    | 23:39:26| Mars   | Jyestha | 3      |

### Weekday Based Upagrahas (Kalidasa)

| Upagraha  | Rashi       | Degrees | Lord | Nakshatra | Charan |
|-----------|-------------|---------|------|-----------|--------|
| Kalabela  | Capricorn  | 15:32:19| Saturn | Sravana | 2      |
| Paridhi   | Aries      | 27:16:26| Mars  | Krittika | 1      |
| Mrityu    | Gemini     | 10:59:22| Mercury | Ardra | 2      |
| Ardhaprahara| Cancer | 22:09:40| Moon | Ashlesha | 2      |
| Yamakantaka| Virgo  | 06:33:54| Mercury | Uttara | 4      |
| Kodanda   | Libra      | 20:39:54| Venus | Vishakha | 1      |
| Gulika    | Sagittarius| 01:50:23| Jupiter | Moola | 1      |
| Mandi     | Scorpio    | 23:39:26| Mars  | Jyestha | 3      |
### Vimshottari Dasha (Mahadasha)

| Planet | Years | From | To |
|--------|-------|------|----|
| Jupiter | 16 | 19-11-1974 | 19-11-1990 |
| Saturn | 19 | 19-11-1990 | 19-11-2009 |
| Mercury | 17 | 19-11-2009 | 19-11-2026 |
| Ketu | 7 | 19-11-2026 | 19-11-2033 |
| Venus | 20 | 19-11-2033 | 19-11-2053 |
| Sun | 6 | 19-11-2053 | 19-11-2059 |
| Moon | 10 | 19-11-2059 | 19-11-2069 |
| Mars | 7 | 19-11-2069 | 19-11-2076 |
| Rahu | 18 | 19-11-2076 | 19-11-2094 |

**Example Dates:**
- **Jupiter:** From 19-11-1974 to 19-11-1990
- **Saturn:** From 19-11-1990 to 19-11-2009
- **Mercury:** From 19-11-2009 to 19-11-2026
### Appendix 1

#### Saturn

| From       | To        |
|------------|-----------|
| 19-11-1990 | 22-11-1993 |

#### Mercury

| From       | To        |
|------------|-----------|
| 22-11-1993 | 01-08-1996 |

#### Ketu

| From       | To        |
|------------|-----------|
| 01-08-1996 | 09-09-1997 |

#### Venus

| From       | To        |
|------------|-----------|
| 09-09-1997 | 09-11-2000 |

#### Sun

| From       | To        |
|------------|-----------|
| 09-11-2000 | 22-10-2001 |

#### Moon

| From       | To        |
|------------|-----------|
| 22-10-2001 | 23-05-2003 |

#### Mars

| From       | To        |
|------------|-----------|
| 23-05-2003 | 02-07-2004 |

#### Rahu

| From       | To        |
|------------|-----------|
| 02-07-2004 | 08-05-2007 |

#### Jupiter

| From       | To        |
|------------|-----------|
| 08-05-2007 | 19-11-2009 |

#### Appendix 5

#### Vimshottari-Pratyantar

- **Saturn**
  - From: 19-11-1990
  - To: 22-11-1993
- **Mercury**
  - From: 22-11-1993
  - To: 01-08-1996
- **Ketu**
  - From: 01-08-1996
  - To: 09-09-1997
- **Venus**
  - From: 09-09-1997
  - To: 09-11-2000
- **Sun**
  - From: 09-11-2000
  - To: 22-10-2001
- **Moon**
  - From: 22-10-2001
  - To: 23-05-2003
- **Mars**
  - From: 23-05-2003
  - To: 02-07-2004
- **Rahu**
  - From: 02-07-2004
  - To: 08-05-2007
- **Jupiter**
  - From: 08-05-2007
  - To: 19-11-2009

- **Sun**
  - From: 08-05-2007
  - To: 19-11-2009

- **Moon**
  - From: 19-11-2009
  - To: 02-07-2004