stringent cutoff points of 24/30 and 21/30; however, this still resulted in false-positive rates of 78 % and 59 %, respectively. These results further suggest that the MMSE may not be the ideal screening instrument for dementia in primary care [11].

A UK postal survey study carried out in 2008, which investigated the use of screening tools in primary care, found that 79 % of practices used at least one dementia screening tool, including the following: the MMSE and its variants (51 %), the Abbreviated Mental Test (AMT) (11 %), MMSE and AMT (10 %), MMSE and Clock Drawing Test (CDT) (8 %), MMSE and the Six-Item Cognitive Impairment Test (6-CIT) (6 %), and the CDT (5 %). The study touched upon the need for screening tools, other than the MMSE, to be more available to general practice surgeries [13]. It is important to note, however, that these findings may be limited to suggesting the intention by practices to use these scales rather than actual usage figures. Nonetheless, despite its limitations, the MMSE remains the most widely used screening tool [14].

The 6-CIT is easily translated into other languages, as demonstrated by Barua and Kar in an investigation of depression in elderly Indian patients [15]. The 6-CIT was used to assess cognitive impairment in individuals over 60 years of age and was translated into both Hindi and Kannada for the purposes of the study. To ensure its correct translation, Barua and Kar asked a study-blind psychiatrist to translate the test back into English, where it was found to remain textually correct to the original. Further evidence for multilingual translation of the scale is suggested by Broderick in which a modified 6-CIT was used in the Xhosa language of South Africa [16]. The 6-CIT is also used in two parallel versions for use in British and American populations [17].

11.2 6-CIT: Item Contents

The 6-CIT comprises one memory question, two calculation questions, and three orientation questions. In Table 11.1, these are discussed in more detail in relation to scoring criteria and acceptable responses.

The 6-CIT uses an inverse scoring method (better score=less points), and questions are weighted to produce a total score out of 28. The original validation of the scale by Katzman et al. [1] suggested a score of six points or less to be a normal score, with scores of seven or higher warranting further investigation to rule out a dementia-related disorder. However, based on the clinical research findings of Morris et al. [4], more specific criteria can be given as follows:

0–4: Normal cognition
5–9: Questionable impairment
10 or more: Impairment consistent with dementia (evaluate further)

The 6-CIT takes approximately 2 min to complete.

Table 11.1 Questions within the 6-CIT, scoring criteria, and acceptable responses

Question 1 - What year is it? (orientation)

The exact year must be given; however, an incomplete numerical value for the year (e.g. 11 instead of 2011) is accepted as correct

Scoring: The patient will score 0 for a correct answer and 4 for an incorrect answer

Question 2 - What month is it? (orientation)

The exact month must be given; however, a numerical value for the month (e.g. 10 for October) is accepted as correct

Scoring: The patient will score 0 for a correct answer and 3 for an incorrect answer

Question 3 - (memory – part 1)

In this part of the questionnaire, the practitioner gives the patient an address phrase with five components to remember, for example, John, Smith, 42, High Street, Bedford (this phrase is to be recalled after question 6). The practitioner should say *I will give you a name and address to remember for a few minutes. Listen to me say the entire name and address and then repeat it after me.* The trial phrase should be re-administered until the subject is able to repeat the entire phrase without assistance or until a maximum of three attempts. If the subject is unable to learn the phrase after three attempts, a "C" should be recorded. This indicates the subject could not learn the phrase in three tries. Whether or not the trial phrase is learned, the clinician should instruct "Good, now remember that name and address for a few minutes"

Question 4 - About what time is it? (orientation)

A correct response should be given without the participant referring to a watch or clock and should be accurate to ±1 h. If the answer given is rather vague (e.g. almost 2 pm) the patient should be prompted for a more specific answer

Scoring: The patient will score 0 for a correct answer and 3 for an incorrect answer

Question 5 - Count backward from 20 to 1 (calculation)

If the patient skips a number after 20, an error should be recorded. If the patient starts counting forward or forgets the task at any point, the instructions should be repeated and an error recorded

Scoring: The patient will score 0 for a correct answer (no errors), 2 points for 1 error, and 4 points for more than 1 error

Question 6 - Say the months of the year in reverse (calculation)

To get the subject started, the examiner may state, *Start with the last month of the year. The last month of the year is: (patient to fill in the gap)*

If the patient cannot recall the last month of the year, the examiner may prompt with "December". However, one error should be recorded. If the patient skips a month, an error should be recorded. If the patient begins saying the months forward upon initiation of the task, the instructions should be repeated and no error recorded. If the patient starts saying the months forward during the task or forgets the task, the instructions should be repeated and one error recorded

Scoring: The patient will score 0 for a correct answer (no errors), 2 points for 1 error, and 4 points for more than 1 error

Memory - part 2 Repeat the name and address I asked you to remember.

The patient should state each item verbatim. The address number must be exact (e.g. 420 instead of 42 is incorrect). Omitting the thoroughfare term (street, road, drive, crescent) from the street name or substituting it for a different one *will not* constitute an incorrect answer – score as correct

Scoring: The patient will score 0 for a correct answer (no errors), 2 points for 1 error, 4 points for 2 errors, 6 points for 3 errors, 8 points for 4 errors, and 10 points if they got all of the components wrong