Sociocultural adaptation of Unhelpful Thoughts and Beliefs about Stuttering

scales in Kannada

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ALL INDIA INSTITUTE OF SPEECH AND HEARING

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July 2020

CERTIFICATE

This is to certify that this dissertation entitled "Sociocultural adaptation of Unhelpful Thoughts and Beliefs about Stuttering scales in Kannada" is a bonafide work submitted in part fulfillment for degree of Master of Science (Speech-Language Pathology) of the student Registration Number: 18SLP012. This has been carried out under the guidance of a faculty of this institute and has not been submitted earlier to any other University for award of any other Diploma or Degree.

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DECLARATION

This is to certify that this dissertation entitled "Sociocultural adaptation of Unhelpful Thoughts and Beliefs about Stuttering scales in Kannada" is the result of my own study under the guidance of Dr.Santhosh M., Associate Professor, All India Instutute of Speech and Hearing, Mysuru, and has not been submitted earlier to any other University for award of any other Diploma or Degree.

Mysuru   **Registration Number: 18SLP012**

July 2020

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Tinku, *Hudu*, *Nikki,Aftab and Sonia*, I can never thank you guys enough for being there, for keeping with my constant complaining about work and for those words of encouragement.

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Love, Nida

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CHAPTER 1

INTRODUCTION

"Stuttering is a dynamic disorder which encompasses a wide range of symptoms including diverse motor behaviors, cognition, emotion, linguistic and affective aspects" (Smith, 1999). Adding to the typical characteristics of stuttering like syllable repetition, broken words, and prolongations, the latest study has shown that for individuals with stuttering the quality of life is affected by speech-related anxiety and negative response to stuttering (Chu, Sakai, Mori, & Iverach, 2017). Multiple studies have been done for decades to understand the association between anxiety and stuttering. Multiple forms of research have been undertaken, focusing on the anticipation of social harm, the dread of critical or cynical evaluation, and social anxiety (Iverach, Menzies, O'Brian, Packman, and Onslow, 2011). Findings from the study show that when compared to the general population, social anxiety is present to a greater extent in indviduals who stutter (Aydin Uysal & Ege, 2019). For individuals who stutter with social anxiety, they have a higher risk of a behavioral deficit, and their quality of life is negatively affected by it (Aydın Uysal & Ege, 2019). The anxiety levels in individuals attending therapy also have an impact on treatment outcomes and the rates of relapse (Craig, Hancock & Tran, 2003; Hancock & Craig, 1998).

Numerous instruments have been developed over the past many years for assessing the severity of stuttering. Recent research undertaken has shown that adding to these assessment tools, being attentive to the beliefs, anxiety, and thoughts experienced by individuals with a history of stuttering could provide appreciable data and information during their preliminary diagnosis and subsequent treatment procedures (Bloodstein & Ratner, 2008; Blumgart, Tran, & Craig, 2010;

Menzies et al., 2008). There is an all-inclusive self-reporting measure called The "Unhelpful Thoughts and Beliefs about Stuttering" scale (UTBAS) that helps to test the unpleasant thoughts and beliefs that are indicative of a negative mindset that is relatable to being socially anxious among individuals with stuttering (St. Clare et al., 2009). As opposed to a scale that assesses the extent to which stuttering impacts an individual's life, the "Overall Assessment of Speakers Experiences of Stuttering" (OASES), the UTBAS scales broadly evaluates the occurrence of negative cognitions and beliefs that are associated with stuttering. The comprehensive review of adults with stuttering who were participants in a Cognitive Behavior Therapy program for social anxiety resulted in the UTBAS scales and it was established over a period of 10 years (St. Clare et al., 2009). For effective assessment of negative attitudes and anxiety, UTBAS scales have been proved to be useful (Iverach et al., 2011).

Assessment using UTBAS scales helps the clinician to distinguish between persons who stutter who have either been diagnosed with a social anxiety disorder or not (Iverach et al., 2011). Thus, the scales help the speech therapist to delineate the thoughts and beliefs in persons with stuttering, which can affect progress in speech therapy. It can thus be useful in identifying the aberrant thought patterns that can worsen any social or speaking situation for a person with stuttering. For it to be equally effective in multicultural clinical contexts, the scale requires to be fine-tuned and adapted in different countries with different socio-cultural settings. So far, it has been adapted for the Turkish (Uysal & Ege, 2019) and Japanese adults who stutter (Chu, Sakai, Mori, & Iverach, 2017). A comparison of the mean scores between the Japanese and Australian normative sample was done and it was found out that the scores were similar for all the subscales except for the UTBAS-I, where the Australian version had a higher score. When the UTBAS-TR

was compared to the Japanese and Australian versions, it too had performed in a comparable manner.

Need for the study

There is currently no standardized tool to evaluate and measure anxiety in the stuttering population in Kannada. There is a need for a well-validated standardized tool for the assessment of anxiety in the stuttering population in India to help us in better understanding the disorder and to aid in the management of the individuals who stutter. It can be safely presumed that clinicians and researchers across the Karnataka population would benefit considerably from a scale such as the UTBAS in order to accurately make decisions pertaining to the subsequent treatment arrangements in clinical and research settings.

Aim of the study

To translate, adapt, validate and measure the psychometric properties of the "Unhelpful Thoughts and Beliefs about Stuttering" (UTBAS) scale in Kannada.

Objectives

1. To Socio-culturally adapt and translate UTBAS scales to Kannada speaking community.

2. To compare the scores between the Kannada, Australian, Japanese, and Turkish (UTBAS) datasets.

3. To study the psychometrical properties of the UTBAS-K scale.

CHAPTER 2
REVIEW OF LITERATURE

"Stuttering can be defined as a dynamic disorder encompassing a wide range of symptoms representative of various domains such as diverse motor behaviors, emotion, linguistic, cognition and affective aspects" (Smith,1999). Stuttering encompasses issues in the execution with break down in speech motor processing and speech-motor planning. In such cases, when the commands of the motoric aspects are sent to the muscles, the muscles get disrupted and disfluencies arise because the muscle activity considered normal for the speech is not generated (Smith, 1999). The cognitive domain includes the thoughts and beliefs that are stuttering associated. The commencement of stuttering is most often observed when the child's language skills are showing a rapid increment, such as exponential growth in the utterance mean length (Miller & Chapman, 1981) and the skills of phonology (Rvachew & Lapré, 2012). Affective components refer to the feelings and emotions that accompany stuttering. This includes shame, guilt, anger, and frustration. Multiple personality traits have been viewed as key emotional aspects of stuttering. However, in literature, the anxiety has historically received the most attention. Stuttering individuals have a disposition to social anxiety. Multiple studies and research reports have conclusions that are supportive of the inference that a significant number of stuttering adults suffer from social anxiety (Bloodstein, 1995; Iverach, Menzies, O'Brian, Packman, & Onslow, 2011; Iverach & Rappee, 2014).

From a research point of view, it is of paramount importance to get a deeper knowledge of the connection between the severity of dysfluencies and the anxiety encountered in any social situation, and the impact it has on understanding the prognosis and presentation of stuttering.

Furthermore, the information is relevant to speech-language clinicians in two ways. Firstly, in relation to the clinical interaction with clients, a speech-language clinician should be made fully aware of the difficulties the clients face in the society so that the clinician can relate to the client effectively (Turnbaugh, Guitar & Hofffman, 1979). Secondly, the awareness of the difficulties that the clients encounter in different places and social-settings would assist in providing the necessary support and guidance to overcome the same. Hence, an adequately accurate assessment of social anxiety's cognitive component in stuttering by developing an exhaustive means of measuring the negative attitudes and aberrant thought patterns in individuals who stutter, which can contribute to social anxiety, is of paramount importance. The objective of this research work is to develop a standardized tool that evaluates and measures anxiety among the stuttering population in Kannada. The review of literature is organized into the following sections.

2.1 Anxiety associated with Stuttering

"Anxiety is defined as a compound psychological trait comprising of verbal-cognitive, behavioral, and physiological components" (Ezrati-Vinacour & Levin, 2004; Menzies, Onslow, & Packman, 1999). Since long time fluency disorders have been known to be strongly linked with negative thoughts, including anxiety (Menzies *et al.* 1999). The negative impact of stuttering on relationships and social interactions are the negative attitudes and speech-related anxiety (Peters & Starkweather, 1989; Miller &Watson, 1992). Furthermore, are negative consequences that can be associated with stuttering which include fear of negative evaluations, self-consciousness, poor self-esteem, expecting social harm, and shame (O'Brian, Onslow, Cream, & Packman, 2003; Messenger, Onslow, Packman, & Menzies, 2004). Undoubtedly, anxiety, being so closely associated with stuttering, has been thoroughly investigated as one of the main psychological precipitators of dysfluencies (Ingham, 1984; Peters & Hulstijn, 1984).

Social anxiety disorder which is also called social phobia is an anxiety condition that has high prevalence (Ruscio, 2008). Social anxiety disorder as per the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013a), is characterized by considerable fear of any social situation or occasion requiring some verbal participation from the person with stuttering, where an audience is present or may judge the same. The situations they fear include talking to strangers, public speaking, and speaking to a higher authority (Ballenger, Wheadon, Steiner, Bushnell, & Gergel, 1998).

Anxiety in the area of clinical psychology is seen as a composite design consisting of three constituents, which are physiological, behavioral, and cognitive (Barlow 2002). Anxiety provoking stimuli or situations triggering unhelpful thoughts and beliefs are a part of the cognitive component. Cognitions related to social anxiety include beliefs that others will negatively judge them for stuttering and negative evaluations also including other opinions (Wells & Clark 1997, Hofman & Barlow 2002). The extent to which a person with stuttering feels forced to remove himself from any social context that may give rise to anxiety refers to this aspect of unhelpful behaviors. an elevated heart rate, sweating and blushing are some of the changes that happen in the body during a response to anxiety which comes under the physiological component.

The association between stuttering and anxiety is widespread and there are a number of reasons for it. Speech is, without any doubt whatsoever, important for daily functions and to develop and maintain socialization and relationships with people (Messenger, Onslow, Packman, & Menzies, 2004). Dysfluencies are often linked to negative repercussions that have adverse effects on personal and social lives (Craig, Blumgart, & Tran, 2009).

It is observed that, either immediately afterward, or while attending preschool the disadvantageous consequences of stuttering begin (Ezrati-Vinacour, Platzky, & Yairi, 2001; Langevin, Packman, & Onslow, 2009) and it continues through the persons' life. It begins to include unpleasant experiences with listener reactions, social isolation, rejection, bullying, mockery, occupational and educational underachievements, difficulties in relationships, and fear of public speaking (Blood & Blood, 2007; Cream, Onslow, Packman, & Llewellyn, 2003; Davis, Howell, & Cooke, 2002; O'Brian, Jones, Packman, Menzies, & Onslow, 2011; Turnbaugh, Guitar, & Hoffman, 1979). The anxiety experienced by persons with stuttering in various social contexts can be thought of as a cumulative effect of possibly unpleasant reactions that they would have encountered throughout their lives (Bloodstein, 1995; Ingham, 1984).

2.2 Assessment of anxiety related to stuttering

Multiple studies have been attempted to physiologically test to evaluate anxiety in PWS. Inconclusive results have been found from studying measures like variations in heart rate, galvanic skin reactions and autonomic nervous system activity (Weber & Smith, 1990). Extensive research on the stress hormone, cortisol, indicates that increased levels of the same can mean heightened state anxiety rather than generalized anxiety (Craig & Hancock, 1996).

A study was done to assess self-reported anxiety in persons who have stuttering (Craig, Hancock, Dickson, Martin &Chang 1990). They assessed state anxiety and trait anxiety for a large number of PWS before and after a comprehensive behavioral therapy. It was found out that PWS had a substantially higher level of state anxiety in a tasking social situation involving verbal exchange. When compared to the matched controls they were also reported to exhibit higher levels

of chronic anxiety (trait anxiety). Though it does not draw a conclusion that anxiety causes stuttering, these outcomes are significant implications for disorder management.

Blood and Susman (1994) investigated anxiety in 11 male PWS and 11 male PWNS in the baseline, less stress, and high-stress sessions. Their anxiety was measured using a self-reporting questionnaire. With the State Anxiety Inventory, substantial variations in anxiety levels between the different sessions were observed in both groups of participants. The findings suggest that levels of anxiety change in low stressed as well as in high stressed conditions. Mahr and Torosian (1999) in their research studied the similarity of indicators of anxiety among a sample of 22 PWS to individuals with social phobia and matched controls. A study done by Mahr and Torosian (1999) revealed that individuals who stutter exhibited more social anxiety and might even avoid situations despite not having social phobia. Therefore, findings suggest that because of fear of speaking, PWS avoid situations that lead to anxiety.

Self-reported questionnaires are being used by speech-language pathologists in persons who stutter to assess the relative distress they feel in various speaking situations. But there is want of knowledge regarding how much an individual's understanding of his own speech related anxiety in various situations explain certain physiological reactions. Dietrich and Roaman (2001) conducted a study wherein 24 PWS were assessed using a questionnaire to obtain predictions of their speech related-anxiety for 20 imaginary speaking situations. It was found that there was no correlation between the participant's prediction of anxiety and their skin conduction response. Through this study, it was evident that PWS could not predict their own speech-related anxiety.

The presence of social anxiety was assessed by Kraaimat and Vanryckeghem (2002) in adults who stutter. A social anxiety inventory called the Inventory of Interpersonal Situations (IIS)

(Van Dam-Baggen & Kraaimaat, 1999) assesses two components: the degree to which an individual feels uncomfortable in a social situation, and how fast responses are produced in a social situation. When this tool was administered on persons with stuttering, they were found to exhibit more of emotional tension or discomfort, as well as a significantly lower frequency of social responses compared to their non-stuttering peers. These findings lend support to the notion that persons with stuttering do have higher levels of social anxiety than those who do not stutter.

A study was done to compare the anxiety that was self-reported in AWS and AWNS (Gabel, Colcord, Petrosino, 2002). The participants of the study included 10 individuals who did not stutter and 10 individuals who stutter attending speech therapy. Statistical analyses reported significantly higher anxiety in individuals who stutter in different conditions. Hence, PWS had increased anxiety regardless of the condition than PWNS.

Feelings and emotions affect people who stutter but the nature of the relation between the two is unclear.No significant association between stuttering and sympathetic nervous system function have been detected by the psycho-physiological studies. Alm (2004) conducted research on the variation of heart rate relative to various speech situations that were stressful to show that AWS tends to display an inconsistent reduction in heart rate compared to AWNS. The study emphasized that the lowering of heart rate could signify an emotional reaction to anticipatory anxiety.

Messenger and colleagues (2004) studied the link between stuttering, social anxiety, and negative social expectations. It was reported that scores on the Fear of Negative Evaluation Scale (FNE; Watson & Friend, 1969) and the New/Strange Situations and the Social Evaluation subtests of the EMAS-T were substantially more for participants who stutter as compared to the 34 control

participants. The result of this study confirmed that the nature of anxiety in stuttering is socially evaluative, and this has been supported by further research. It was also reported in another study that for a larger sample of individuals who stutter the mean score for FNE was significantly higher than the control group (Blumgart, Tran &Craig,2010). The authors had then moved on to conclude that social anxiety in PWS was due to negative social expectancies.

The lives of adolescents and children can be negatively affected by high levels of anxiety. A research was done by Blood, Meyer, and Qualls (2007) on standardized scales for anxiety and self-esteem, it was administered on 36 adolescents who stutter and 36 who do not. It was found out that there was no substantial difference between different ethnic groups, gender and anxiety levels. In both groups, anxiety scores and self-esteem scores revealed a positive correlation. Therefore, it is clear that PWS have anxiety and self-esteem problems.

 Mulcahy, Hennessey, Beilby and Byrnes (2008) studied the associations between anxiety, attitude towards daily communication, and symptoms of stuttering in adolescents with stuttering. Adolescents who stuttered exhibited elevated levels of trait, state and social anxiety as compared to the adolescents who did not. For adolescents who stutter communication difficulty in different situations were associated with significant trait and state anxiety levels. Though findings illustrate a few of the psychosocial concomitants of adolescent chronic stuttering, it contradicts the idea that fear plays a clear role in stuttering by mediating the surface behaviors. Thus, these findings depict stuttering as a disorder with psychosocial conflict independent of the characteristics at the surface level.

Packman and Onslow (2009) looked into how prevalent anxiety disorders were in adults with stuttering undergoing treatment for the same. The participants of the study included 92 AWS

seeking speech therapy and 92 AWNS, age and gender-matched controls Case-controlled study design was used. It was found that adults with stuttering were six times more likely to be diagnosed to have anxiety disorder under DSM-IV or ICD-10 than those who did not stutter. It was concluded that stuttering tends to be associated with a significantly increased risk of a variety of anxiety disorders.

Blumgart, Tran and Craig (2010) attempted to examine how prevalent the fear of social situations may be in adults with stuttering, and delineate differences in how social anxiety maniests in adults with stuttering and those without. The former group was fiund to have elevated levels of trait and social anxiety, and as well at higher risk of social phobia as compared to the latter.

 It was pointed out by Iverach, Menzies, O'Brian, Packman, and Onslow (2011) that researches have mainly concentrated on the anxiety, negative expectancies and fear of negative assessment by adults with stuttering in social situations. In brief, it seems that those who stutter are prone to social anxiety, and that anxiety in many cases is a major aspect of stuttering. From a research point of view, it is important to understand how social anxiety is related to stuttering, the impact it might have on the stuttering and its prognosis, and whether interventions aimed at social anxiety add to the efficacy of standard speech therapy treatments.

From a clinical perspective assessing social anxiety is important for speech-language pathologists as its presence might interfere with treatment compliance and early detection, this might have a significant impact on therapy planning (O'Brian et al.,1998). Accurate evaluation of the cognitive aspect of social anxiety in stuttering individuals involves the establishment of a standardized measure of cognitions that contribute directly to stuttering.

Studies were conducted to report on the validity of the scales of Unhelpful Thoughts and Beliefs About Stuttering (UTBAS), explicitly designed to reliably measure the prevalence of negative beliefs and thoughts and also the levels of anxiety associated with stuttering (Iverach, Menzies, et al., 2011; St Clare et al.,2009). The UTBAS was originally created by a thorough analysis of unhelpful thoughts and beliefs of individuals with stuttering participating in a CBT program for anxiety over a ten year period (St Clare et al., 2009). It was also reported by St Clare et al. that the UTBAS was capable of distinguishing the unhelpful thoughts related to stuttering between individuals with stuttering and the control participants. It was seen that the individuals who received CBT treatment were sensitive to variations in social anxiety. In addition, Iverach, Menzies, et al. (2011) administered the UTBAS scales to a sample of 140 individuals with stuttering attending therapy. It was found out by the authors that the mean UTBAS scores were significantly higher for individuals who met social phobia criteria and also screening criteria for anxious personality disorder. Ultimately, these findings have supported the use of UTBAS scales to assess the magnitude of negative thoughts among stuttering individuals.

CHAPTER 3

METHOD

3.1 Participants

The participants for the study were 30 adults who stutter (AWS) in the age range of 17 to 41 years (mean age=23.3 years, S.D=3.8). All the participants were native speakers of Kannada language. Further all the participants were literates with minimum education of 12th grade. The participants were recruited from the Department of Clinical Services, at the All India Institute of Speech and Hearing (AIISH). The demographic details from the participants were obtained using a self reporting questionaire. Participants provided information regarding the onset of the problem, family history of stuttering, handedness, age of onset, absence or presence of the associated problems. Only those individuals without any other associated problems such as neurological, psychological, or hearing problems were recruited for the current study.

Stuttering Severity Instrument - Fourth Edition (SSI-4;Riley, 2009) was administered by the examiner prior to the initiation of the study. Among the thirty participants, two had very mild, six had mild, nine had moderate and thirteen had severe stuttering. The demographic details of all the participants are provided in Table 1. Informed written consent was obtained from all of the participants.

Study Design and type of sample collection: Cross sectional study design and purposive sampling was used for the current study

Table 3.1

Demographic details and severity of stuttering of individuals who stutter

Participants	Age	Gender	SSI Score	Severity	Handedness	Age of onset of Stuttering	Family history of stuttering
AWS 1	18yrs	M	33	Severe	Right	Since childhood	Negative
AWS 2	22yrs	M	35	Severe	Right	Since childhood	Negative
AWS 3	23yrs	F	32	Severe	Right	Since childhood	Negative
AWS 4	20yrs	M	34	Severe	Right	Since childhood	Negative
AWS 5	27yrs	M	34	Severe	Right	Since childhood	Negative
AWS 6	27yrs	M	11	Very Mild	Right	10 yrs	Positive
AWS 7	18yrs	M	20	Mild	Right	Since childhood	Negative
AWS 8	22yrs	M	15	Mild	Right	5 yrs	Negative
AWS 9	20.5yrs	M	10	Very Mild	Right	Since childhood	Negative
AWS 10	22yrs	M	32	Severe	Right	Since childhood	Negative
AWS 11	25yrs	M	19	Mild	Right	Since childhood	Positive
AWS 12	22yrs	M	36	Severe	Left	Since childhood	Positive
AWS 13	25yrs	M	33	Severe	Right	10 yrs	Negative
AWS 14	22yrs	M	26	Moderate	Right	5 yrs	Negative
AWS 15	26yrs	M	35	Severe	Right	5 yrs	Negative
AWS 16	24yrs	M	34	Severe	Right	4 yrs	Negative
AWS 17	28yrs	M	26	Moderate	Right	4 yrs	Negative
AWS 18	18yrs	M	34	Severe	Right	Since childhood	Positive
AWS 19	21yrs	M	26	Moderate	Right	16 yrs	Positive
AWS 20	21yrs	M	25	Moderate	Right	6 yrs	Negative
AWS 21	26yrs	M	33	Severe	Left	5 yrs	Negative
AWS 22	26yrs	M	26	Moderate	Right	14 yrs	Negative
AWS 23	23yrs	M	32	Severe	Right	8 yrs	Positive
AWS 24	28yrs	M	25	Moderate	Left	4 yrs	Negative
AWS 25	24yrs	F	28	Moderate	Left	5 yrs	Positive
AWS 26	22yrs	F	30	Moderate	Right	5 yrs	Positive
AWS 27	21yrs	M	20	Mild	Right	6yrs	Negative
AWS 28	29yrs	M	19	Mild	Right	8yrs	Negative
AWS 29	23yrs	M	20	Mild	Right	6 yrs	Negative
AWS 30	24yrs	M	26	Moderate	Right	5 yrs	Negative

3.2 Ethical approval and consent

In compliance with the Ethical guidelines for Bio-Behavioral Research Involving Human subjects (2009) of the All India Institute of Speech and Hearing, Mysuru, the data was obtained.

3.3 Test material

UTBAS is a self-reporting questionnaire. It consists of 66 items that are aimed at measuring and analyzing unhelpful thoughts, beliefs, and anxiety that are associated with stuttering (St. Clare et al., 2008). There are three sections to UTBAS and they are as follows: I) "Frequency of negative thoughts and beliefs", (II) "Belief in these thoughts", and (III) "Anxiety associated with these thoughts". A 5-point Likert scale is typically used for scoring the input statements. UTBAS I scale is used to rate how frequently the individual has that particular thought ("5= Always have the thought, 4= Often have the thought, 3= sometimes have the thought, 2= rarely have the thought, 1= Never have the thought"). Subsequently, in UTBAS II the participants had to rate how much they believe in that particular thought (" 5= I believe this totally, 4= I believe this a lot, 3= I believe it somewhat, 2= I believe this somewhat, 1= I don't believe this at all"). And finally, using UTBAS III the participants' rate how anxious they feel about each thought ("5= makes me extremely feel anxious, 4= makes me very anxious, 3= makes me somewhat anxious, 2= makes me a little anxious, 1= does not make me anxious at all."). Separate scores are provided for all three sets of responses as well as for the total score which is the sum of all the three components of UTBAS. Higher negative thoughts, beliefs and anxiety about stuttering are indicated by higher scores (St. Clare et al., 2008).

3.4 Procedure

Phase 1 – Socio-cultural adaptation

Prior to the start of the study, the original authors' permission (Onslow et al., 2009) to adapt and translate the UTBAS to Kannada was obtained. Before the translation began, careful analysis of the original version of the questionnaire was done and the socio-cultural appropriateness of items was studied. A literal translation of the questionnaire was not enough, and it needed to be adapted to that language. The newly translated questionnaire should asses the exact same point that it was intended to convey regardless of the cultural differences with respect to the vocabulary, definitions, and expressive nature of the language.

For the sociocultural adaptation, two native Kannada speaking adult males and two females with a graduate degree and proficient in English were asked to analyze the items of the questionnaire and to suggest modifications wherever necessary. As suggested by one of the four examiners, the usage of many technical terms might decrease the self-explanatory quality of the questionnaire and this was taken into consideration while translating the questionnaire. For easier and efficient translation, another examiner suggested rephrasing certain words. Since we do not culturally use answering machines, the 61st item was changed to the phrase "I am afraid of recording my voice and sending it as a message" from "The answering machine will turn off if I block, I won't be able to leave any message."

Phase 2- Translation

The questionnaire was translated using the well-accepted AAOS guidelines (Beaton et al., 2000). AAOS guidelines are one amongst the first thorough descriptions of the methodology selected for translating and adapting measures (Acquardo et al., 2008). The following steps were followed in this study for the translation (Thammaiah et al., 2016).The Kannada translated UTBAS scale attached as Appendix I.

1. Forward translation

2. Synthesizing common translation

3. Backward translation

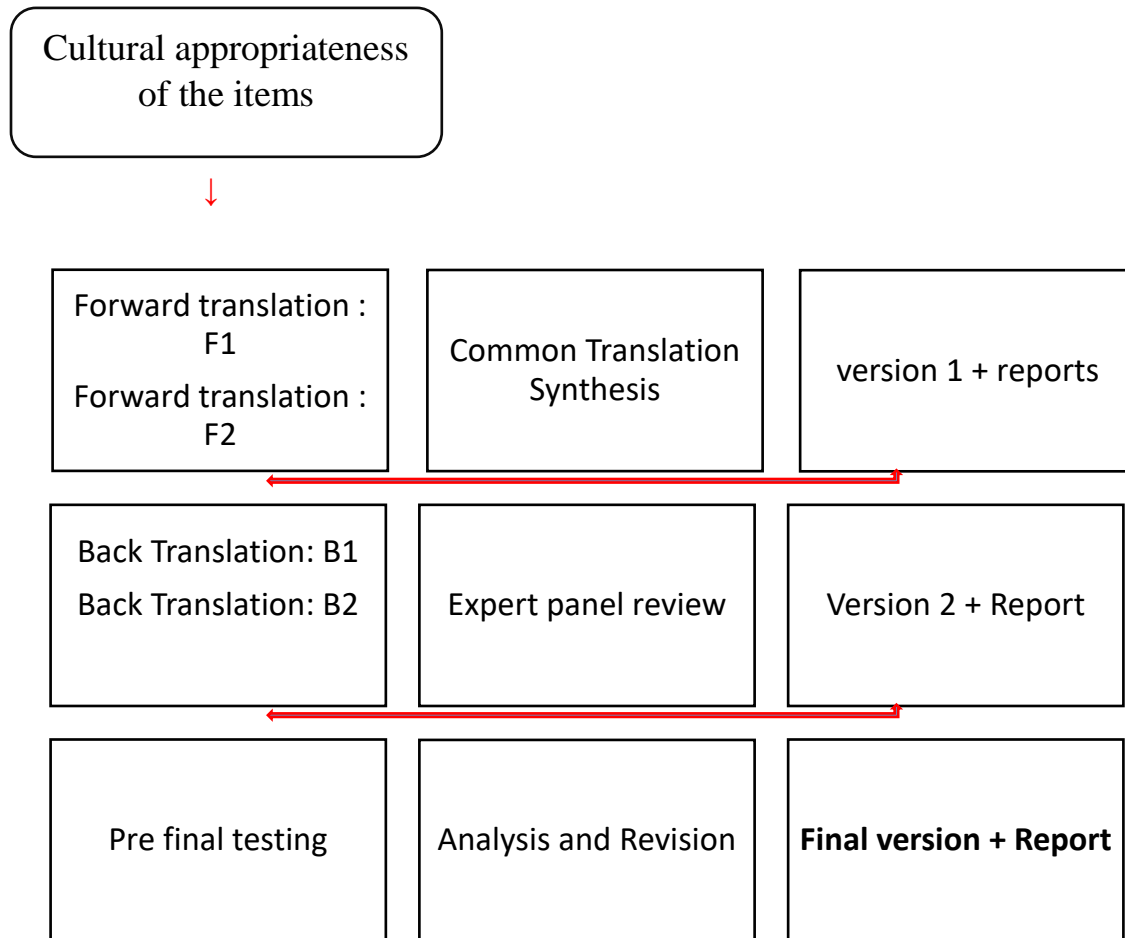4. Expert committee review

5. Pre-final testing

Figure.1 Flowchart of adaptation-translation process

1. *Forward Translation*

Forward translation of the UTBAS scales I, II and III into Kannada was done by two Kannada-English bilingual translators (with bachelor's degree qualification) separately (one translator was informed and the other was not informed regarding the concepts being quantified), whose first language is Kannada.

2. *Synthesizing A Common Translation*

The two forward-translated versions were then compared by the same two translators in order to resolve the poorer word choices and then the corrections were made.

3. *Backward Translation*

The final forward translated version was given for backward translation to two translators apart from the previous ones (both were not informed regarding the concepts being assessed) who were proficient in both English and Kannada languages. By comparing the two back-translated versions the conceptual errors and gross inconsistencies was noted and corrected.

4. *Expert Committee Review*

Both the original and all the translated versions were then evaluated by forward and back-translators, two experienced SLPs, and a linguist for between versions discrepancies and their feedback and suggestions were considered to modify the final translated version. The response choices that had problems were discussed with the main author of the UTBAS over emails (Onslow et al., 2009). Their feedback and suggestions were considered to modify the final translated version.

5. *Field Testing Of Pre Final Version*

The final translated version was given to 10 native Kannada speakers to assess the familiarity of terms in the questionnaire before administering it to the affected population. They were asked to give feedback on whether there was ambiguity or unfamiliar words used.Those words that were ambiguous were modified based on their suggestions and the final version was developed.

Phase 3- Validation

In this phase, the validation process was done in two steps.

· Step 1- content validation

For content validation, four Speech-Language Pathologists (SLPs) were asked to evaluate the translated questionnaire. They were asked to rate the items on a four-point Likert scale (1-highly appropriate to 4-highly inappropriate) in terms of ambiguity, cultural appropriateness, representativeness, and clarity.The 4 SLPs evaluated the translated questionnaire with mostly score 1 and 2 for all the items and thus depicting that the questionnaire represented good cultural appropriateness, representativeness and clarity.

· Step 2- Data collection/ tool testing

The final adapted questionnaire was administered on the target population, i.e. AWS. The following method was adopted.

Procedure:

1. The target population was recruited from AIISH (All India Institute of Speech and Hearing)

2. For data collection, the online Google forms of adapted UTBAS I, II and II in Kannada was provided to the participants who were willing to take part in the study. Also,

hard copies of the questionnaire were administered to populations who did not have internet facilities.

3.	The Google form included the participant information sheet (PIS) explaining the questionnaire and the need for the study along with informed consent.

4.	The demographic data of the participants were noted in the PIS in terms of age, gender, the onset of stuttering, educational status, occupation, etc.

5.	The adapted questionnaire was self-administered and then submitted to the researcher.

The completed questionnaires were collected along with the participant information sheet. The questionnaire was also re-administered after one month to five participants for test-retest reliability.

3.5 Statistical Analysis

The data was entered in IBM SPSS Statistics 20 and was analyzed. Mean and S.D values were derived for each of the subscales of UTBAS.

The following Psychometric evaluations were done:

a.	Test-Retest Reliability

For this measure, a group of five participants was randomly selected and the questionnaire was re-administered after a month. By correlating the two results a test-retest score of the scale was obtained and a paired t-test was calculated to see any differences in total and subscale scores between T1 and T2. Internal Consistency (Reliability) was assessed using Cronbach's alpha (a) by evaluating the average of the correlations between the items.

b.   Validity

To define the comparability between the Kannada, Australian, Japanese, and Turkish UTBAS data samples, an independent t-test was done. A correlation was done between the UTBAS-K subscales and the UTBAS-K total score to evaluate the construct validity. To be considered acceptable, the Spearman's correlation coefficient values had to be equal to or greater than .40 (Fayers et al.,1997).

CHAPTER 4
RESULTS

The aim of the study was to adapt, validate, and measure the psychometric properties of the UTBAS scale ("Unhelpful Thoughts and Beliefs About Stuttering") in Kannada. The UTBAS-Kannada was completed by 30 AWS. Further, test-retest reliability was done for five participants. For the statistical analysis, SPSS (Statistical Package for the Social Sciences)-Version 20.0 software was used. The following statistical analysis was done.

4.1 Test-Retest Reliability

When the test-retest reliability for UTBAS-K was assessed between scores at T1 and T2 with a one-month interval, a high correlation was found. Table 4.1 gives the results of Cronbach's alpha coefficient for correlation of UTBAS Kannada at time T1 and T2 intervals.

Table 4.1

Results of Cronbach's alpha coefficient for UTBAS-Kannada at T1 and T2.

Subscales at T1and T2	Cronbach's alpha coefficient
UTBAS-K 1	.85
UTBAS-K II	.80
UTBAS-K III	.83
UTBAS TOTAL	.84

UTBAS-K I: Scale which measure the frequency of negative thoughts and beliefs, UTBAS-K II: Scale which measures how much they belive in the negative thoughts about stuttering, UTBAS-K III: Scale which measures the anxiety related to the negative thoughts.

Cronbach's alpha coefficient value was used to evaluate if the UTBAS-K was internally consistent.This is the reliability of UTBAS-K by correlating between all the items.It is generally reported that reliability and good internal consistency is suggested by a Cronbach's alpha coefficient above 0.70 (Nunnally, 1978).To be considered as reliable for use clinically, they should have a coefficient value of 0.8-.85 or higher (Rosenthal & Rosnow,1991).The table 4.2 gives the Cronbach's alpha coefficient values for the correlation among each of the items.Each subscale has a high Cronbach's alpha coefficient value,indicating that UTBAS-K has good internal consistency and is reliable for clinical use.

Table 4.2

Cronbach's alpha coefficient value for each of the subscales of UTBAS-K

Subscales	Total item no. in each scale	Cronbach's alpha coefficient value (N=30)
UTBAS-K I	66	.96
UTBAS-K II	66	.96
UTBAS-K III	66	.97

A paired t-test was done to analyze the test-retest scores of each of the subscales of UTBAS-K for participants at T1 and T2, with a one month interval between the UTBAS-K administration. The results with the UTBAS-K subscales mean , standard deviation, t value, degrees of freedom and level of significance are shown in Table 4.3.

Table 4.3

Mean (standard deviation)and paired t-test results of each of the subscales

		Mean	N	Std. Deviation	t	df	Sig. (2-tailed) (p)
UTBAS-K I	T1	121.20	5	38.53			
	T2	125.80	5	28.81	-.42	4	.69
UTBAS-K II	T1	106.20	5	19.56			
	T2	121	5	26.42	-1.39	4	.23
UTBAS-K III	T1	119.40	5	26.63			
	T2	124.20	5	20.04	-.85	4	.44
UTBAS-K Total	T1	346.80	5	80.09			
	T2	371	5	73.42	-1.02	4	.36

To calculate the difference between T1 and T2 in total and subtotal scores, the paired t-test scores were calculated.In the mean scores for all the three subscales of UTBAS-K and UTBAS-K overall scores at T1 and T2, no significant difference was found from the test which represents a significantly good test retest reliability (Table 4.3) .

4.2 Validity

The UTBAS-K construct validity was obtained by correlating the score of each subscale of UTBAS-K with the over total score. To compare the three subscales (I,II and III) and the UTBAS-K overall score, Spearman correlation tests were performed. Table 4.4 gives the results, with the correlation coefficients.

Table 4.4

Spearman's correlation reults for the UTBAS-K subscales.

			UTBAS-K I Total	UTBAS-K II Total	UTBAS-K III Total	UTBAS-K Total
Spearman's rho	UTBAS-K I Total	Correlation Coefficient	1	.54**	.82**	.88**
		Sig. (2-tailed)	.00	.00	.00	.00
		N	30	30	30	30
	UTBAS-II Total	Correlation Coefficient	.54**	1.00	.67**	.81**
		Sig. (2-tailed)	.02	.00	.00	.00
		N	30	30	30	30
	IIIUTBAS Total	Correlation Coefficient	.82**	.67**	1.00	.92**
		Sig. (2-tailed)	.00	.00	.00	.00
		N	30	30	30	30
	UTBAS-K TOTAL	Correlation Coefficient	.80**	.81**	.92**	1.00
		Sig. (2-tailed)	.00	.00	.00	.00
		N	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

It can be seen from Table 4.4 that the correlation coeffient value between UTBAS-K total score is 0.88 for UTBAS-1, 0.81 for UTBAS-II and 0.92 for UTBAS-III. Between subscale I and subscale III, the correlation was observed to be the highest (rho =0.82,p<0.01). Statistically significant correlation was see for all (p< 0.01).

The Table 4.5 displays the mean and standard deviation scores for UTBAS-K and the original UTBAS scale.Scores were normally distributed on the UTBAS-K .A comparison was made for the mean scores of UTBASI, UTBASII, UTBASIII and Total score for the Kannada and Australian normative samples. It was found that the mean scores were similar.

Table 4.5

Comparison of UTBAS –K scores for 30 AWS and UTBAS original scale done on 140 AWS attending speech therapy (Iverach et al.,2011)

Subscales	Current Sample N=30 M (SD)	UTBAS Original version N=140 M (SD)	t (df)	Significance (p)
UTBAS-K I	144 (40.2)	164.8 (52.2)	2.05 (168)	0.04
UTBAS-K II	142 (42.6)	145.2 (52.9)	0.31 (168)	0.75
UTBAS-K III	151.7 (48.7)	159.1 (61.9)	0.55 (168)	0.57
UTBAS-K TOTAL	438.1 (116.5)	468.5 (160.0)	0.98 (168)	0.32

For the Australian speaking community, the mean scores for UTBAS-K I were significantly higher (Mean=164.79, SD=52.2) as compared to Kannada speaking population [(Mean=144, SD=40.2), t(168)= 2.05, p<0.001].The mean values for total score and subscales II,III for the Australian speaking dataset showed no substantial difference from the current analysis.

This study also compared the UTBAS-K scores with UTBAS-Japanese scores. The normative score for UTBAS-K and UTBAS-J is displayed in the table 4.5. A comparison was made for the mean scores of UTBASI, UTBASII, UTBASIII and Total score.Online unpaired t-test was done and it was found that all subscales by conventional criteria showed no statistically significant difference.

Table 4.6

Comparison of UTBAS –K scores for 30 AWS and UTBAS-J done on 130 AWS (Chu et al.,2011).

Subscales	Curent Sample N=30 M (SD)	UTBAS-J (2017) N=130 M (SD)	t (df)	Significance (p)
UTBAS-K I	144 (40.2)	135.7 (50.1)	0.84 (158)	0.39
UTBAS-K II	142 (42.6)	139.2 (58.3)	0.80 (158)	0.24
UTBAS-K III	151.7 (48.7)	160.1 (67.6)	0.64 (158)	0.52
UTBAS-K TOTAL	438.1 (116.5)	435 (147.2)	0.10 (158)	0.91

A similar comparison was done between the UTBAS-K scales and UTBAS Turkish scales. To compare each of the subscale scores an unpaired t-test was performed.

Table 4.7

Comparison of UTBAS –K scores for 30 AWS and UTBAS-TR scale done on 100 AWS (Uysal et al.,2019)

Study	Current Sample N=30 M (SD)	UTBAS-TR (2019) N=100 M (SD)	T (df)	Significance (p)
UTBAS-K I	144 (40.2)	116.5 (42.1)	3.14 (128)	0.01
UTBAS-K II	142 (42.6)	122.1 (40)	2.35 (128)	0.02
UTBAS-K III	151.7 (48.7)	130 (53)	2 (128)	0.04
UTBAS-K TOTAL	438.1 (116.5)	369 (132)	2.58 (128)	0.01

A Significant difference was seen for the t-test between the UTBAS-K and UTBAS-TR.The t-test showed a considerably higher mean score for all the subscales for the Kannada population as compared to the Turkish population.For the Kannada population, the mean total UTBAS-K score was significantly higher (Mean= 438.1, SD= 116.5) than the Turkish population (Mean = 369,SD = 132), t (128) = 1.58. p<0.001.

CHAPTER 5

DISCUSSION

The present research was an attempt to socio-culturally adapt the UTBAS, translate it into Kannada, and study the psychometric properties of the same. The psychometric evaluation was completed by measuring the Internal Consistency, Construct validity by comparing our scores with the Original UTBAS, UTBAS-J, UTBAS-TR, and test-retest reliability which was done after one month of the initial testing.

The study was carried out in three phases. Findings of phases I (Sociocultural adaptation) and II (Translation) of the study led to an insight of how the usage of self-comprehensible vocabulary would be necessary for the self-administered UTBAS-K questionnaire. Also, as per the opinions of the translators, the expressive vocabulary for a word may or may not be the same for different languages. Hence, a similar word that is more descriptive in nature and best explains the concept should be preferred. As suggested by one of the translators during the sociocultural adaptation, since we do not culturally use answering machines, the 61st item on the UTBAS-K scale was changed to the phrase "I am afraid of recording my voice and sending it as a message" from the phrase "The answering machine will turn off if I block, I won't be able to leave any message." The questionnaire was then translated using the well-accepted AAOS guidelines (Beaton et al., 2000). Phase III (Validation) evaluated the psychometric properties which suggested that the translated version of the UTBAS in Kannada has an outstanding Internal Consistency among the items and test-retest reliability. These outstanding results in the psychometric properties of the translated UTBAS-K were found to be reliable.

From the results of Test-retest reliability, it was seen that UTBAS-K has a high correlation of scores across T1 and T2 for all the subscales with the highest correlation i.e Alpha coefficient (0.96) for the UTBAS-K I. To check for any significant difference in the score for the UTBAS scales at T1 and T2, a paired t-test was also performed. It was found out that there was no substantial difference at T1 and T2 in the mean scores for the UTBAS-K total score and all the three subscales, indicating high test-retest reliability. The results indicated high test-retest reliability since there was no considerable difference in the mean scores between the intervals of administration.This supports that UTBAS-K is a good clinical tool for assessing unhelpful thoughts and beliefs in individuals who stutter.

The UTBAS-K scale's internal consistency was high (0.96-0.97), indicating the scales homogeneity. When the Cronbach's alpha coefficient value is greater than 0.7, it is considered acceptable. The UTBAS-K's internal consistency was identical to that of UTBAS-TR (UTBAS-TR 1= 0.97, UTBAS-TR-2 =0.94, UTBAS-TR III=0.97) (Uysal et al,2019). There was also similarity, when compared to UTBAS-J (UTBAS-J I= 0.98, UTBAS-J II= 0.99, UTBAS-J III=0.99) (Chu et al,2017) . There was good similarity to the original UTBAS version which has been stated with Cronbach's alpha of 0.98, respectively (St. Clare et al.,2008).

Spearman's correlation test was conducted across the three subscales and the over all total score to better understand the relationship across the subscales. All of the correlation was considered significant, with Subscale I and III having the highest correlation (rho =0.82, p<0.01).

During this study it was seen that the UTBAS-K worked in a similar manner to the original Australian version, Japanese and the Turkish version. From the Unpaired t-test results for the comparison of UTBAS-K and the original UTBAS version showed that the UTBAS-1 mean score

was significantly higher (Mean=164.79, SD=52.2) as compared to the Kannada speaking population [(Mean=144, SD=40.2), t (168)=2.05,p<0.001]. Comparing the UTBAS-K with the Japanese version,the mean scores showed no noticeable difference. For all the subscales UTBAS-TR had lower means scores when compared to the Australian, Japanese and the Kannada versions.It has been found from recent studies that social anxiety rates in developing countries are lower relative to the developed countries (Stein et al.2010). A study about social anxiety disorder (SAD), showed prevalence data across 28 countries (also including Australia and Japan) and it was seen that the highest prevalence of SAD in high-income countries and low-middle-income countries as well as in the African and Eastern Mediterranean regions. The underlying potential cause is belived to be a strong demand in high income countries for social success (Stein et al., 2017). Similar socio-cultural factors can explain the lesser UTBAS total scores for the Kannada population as compared to the Australian population.

CHAPTER 6
SUMMARY AND CONCLUSION

The study was aimed at translating, adapting, validating and measuring the psychometric properties of the UTBAS scale ("Unhelpful Thoughts and Beliefs about Stuttering") in Kannada. AAOS standard guidelines were used in translation of the UTBAS scale into Kannada (Beaton et al., 2000) and it was administered to 30 Kannada speaking native individuals with stuttering. The UTBAS-K scales was validated by comparing the UTBAS-K scores to the original Australian version, Japanese and the Turkish version. Evaluation of the internal consistency and the test re-test reliability was done. The statistical analysis gave results that supported that UTBAS-K has good test re-test reliability and performed similarly to the original Australian, Japanese and Turkish versions.It was also found that the UTBAS-K scale had a good internal consistency.

In conclusion, the current research supports that for evaluation of negative thoughts and beliefs accompanying stuttering among the Kannada native adults who stutter, the UTBAS-K is a reliable instrument. Emphasis has been placed on understanding the association between stuttering and anxiety. It therefore focusses on the importance of evaluating and managing the clinically significant anxiety levels in stuttering individuals. This process will be assisted by the current scale by providing valued understandings of speech related worries, anxieties and negative feelings of individuals with stuttering

The tool will help speech language pathologist who treat individuals who stutter and want to evaluate the treatment effects by providing detailed information. The UTBAS-K can deliver in depth information about the different situations in which an individual with stuttering experience negative feelings and beliefs and this can help in clinical management.

Limitations of the study:

- The study's results are encouraging but preliminary and established on a small sample size.

- The participants consisted of mostly young adults, with greater number of males as compared to females.

- The participants were either graduates from highschool or college and thus they came from a from an educated background.

Future directions of the study:

- Potential research is important to help establish the psychometric properties of the UTBAS-K scales by reproducing the present study with a bigger sample,gender matched controls and a wider age group.

- The scale should be tested on a larger, diverse population including non-student sample with wider socio-demographic characteristic.

- Emphasis validation by relating UTBAS-K to clinical, treatment, and outcome measures.

- Further research in the lines of outcome of treatment in stuttering for individuals following speech therapy or CBT will help in providing more information about the probable application of UTBAS-K scales in populations with stuttering.

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APPENDIX I

Unhelpful Thoughts and Beliefs About Stuttering Scales (UTBAS I, II, III) For Adults

ತೊದಲುವಿಕೆ ಬಗೆಗಿನ ಅನಾಹಾಯಕ ಸಂವಿಚಾರಗಳ ಅಳತೆಪಟ್ಟಿ

(1) ನೀವು ಎಷ್ಟು ಬಾರಿ ಈ ಆಲೋಚನೆಗಳನ್ನು ಹೊಂದಿದ್ದೀರಿ, (2) ಈ ಆಲೋಚನೆಗಳನ್ನು ನೀವು ಎಷ್ಟು ನಂಬುತ್ತೀರಿ, (3) ಈ ಆಲೋಚನೆಗಳು ನಿಮಗೆ ಎಷ್ಟು ಆತಂಕವನ್ನು ಂಟುಮಾಡುತ್ತವೆ

1=ಎಂದಿಗೂ
2=ಅಪರೂಪವಾಗಿ
3=ಕೆಲವೊಮ್ಮೆ
4=ಆಗಾಗ್ಗೆ
5=ಯಾವಾಗಲೂ

	ನೀವು ಎಷ್ಟು ಬಾರಿ ಈ ಆಲೋಚನೆಗಳನ್ನು ಹೊಂದಿದ್ದೀರಿ					ಈ ಆಲೋಚನೆಗಳನ್ನು ನೀವು ಎಷ್ಟು ನಂಬುತ್ತೀರಿ					ಈ ಆಲೋಚನೆಗಳು ನಿಮಗೆ ಎಷ್ಟು ಆತಂಕವನ್ನು ಂಟುಮಾಡುತ್ತವೆ				
1	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
2	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
3	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
4	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
6	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
7	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
8	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
10	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
12	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
13	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
14	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
15	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
16	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

1=ಯಾವಾಗಲೂ 2=ಹೆಚ್ಚಾಗಿ 3=ಕೆಲವೊಮ್ಮೆ 4=ಅಪರೂಪ 5=ಎಂದಿಗೂ	ನನ್ನ ಮೇಲೆ ಈ ಹೇಳಿಕೆಗಳು ಅನ್ವಯಿಸುತ್ತವೆ					ಈ ಹೇಳಿಕೆಗಳನ್ನು ನಾನು ಎಷ್ಟು ನಂಬುತ್ತೇನೆ					ಈ ಹೇಳಿಕೆಗಳು ನನಗೆ ಎಷ್ಟು ಚಿಂತೆಯನ್ನು ಉಂಟುಮಾಡುತ್ತವೆ				
17	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
18	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
19	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
20	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
21	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
22	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
23	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
24	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
25	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
26	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
27	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
28	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
29	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
30	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
31	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
32	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
33	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
34	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
35	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

1=ಎಂದಿಗೂ 2=ಅಪರೂಪಕ್ಕೆ 3=ಕೆಲವೊಮ್ಮೆ 4=ಆಗಾಗ 5=ಯಾವಾಗಲೂ	ನಾನು ಈ ಭಾವನೆ ಅನುಭವಿಸುತ್ತೇನೆ					ಈ ಭಾವನೆಗಳನ್ನು ನಾನು ಇಷ್ಟ ಪಡುತ್ತೇನೆ					ಈ ಭಾವನೆಗಳನ್ನು ನಾನು ಇಷ್ಟ ಪಡುವುದಿಲ್ಲ				
36	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
37	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
38	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
39	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
40	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
41	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
42	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
43	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
44	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
45	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
46	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
47	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
48	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
49	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
50	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
51	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
52	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
53	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
54	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

	1=ಒಂದಿಲ್ಲ 2=ವಿರಳವಾಗಿ 3=ಕೆಲವೊಮ್ಮೆ 4=ಆಗಾಗ್ಗೆ 5=ಯಾವಾಗಲೂ	ನಾನು ಎಷ್ಟು ಈ ಹೇಳಿಕೆಗಳನ್ನು ನಂಬುತ್ತೇನೆ					ಈ ಹೇಳಿಕೆಗಳನ್ನು ನಾನು ಎಷ್ಟು ನಂಬುತ್ತೇನೆ					ಈ ಹೇಳಿಕೆಗಳು ನನಗೆ ಎಷ್ಟು ಇಷ್ಟವನ್ನುಂಟುಮಾಡುತ್ತವೆ				
55		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
56		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
57		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
58		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
59		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
60		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
61		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
62		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
63		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
64		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
65		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
66		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

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