Awareness of BASLP as a career option among higher secondary students in Kerala.

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ABSTRACT: Bachelors of Audiology and Speech Language Pathology (B.ASLP) program is a three years academic program (both theoretical and practical learning included) plus one year compulsory internship. The Indian Rehabilitative Council has approved this programme. Speech-language pathologists and audiologists work in a variety of hospital settings, as well as in highly specialised clinics like ENT, paediatric, oncology; industries, defence systems and provide rehabilitation facilities such as hearing aids, cochlear implant and other assistive devices. They can also work at the level of faculty positions and research scholars in various institutions/universities. Speech language pathologists are also provided with placements as swallowing therapists in dysphagia rehabilitation centres, normal and special schools, stroke rehabilitation and dementia clinics. However this exacerbated scope of this field is unknown among prospective college students. The current study attempts to determine how well-aware higher secondary (16–18 years of age) students in Kerala are about BASLP as a career option. The results revealed that these students had a low level of awareness about the program as a career option.

INTRODUCTION
The Bachelor of Audiology and Speech Language Pathology (B.ASLP) programme in India is a four year (3 year plus 1 year compulsory internship) programme. Undergraduate programme of B.ASLP educates about the normal aspects and disorders of speech, language and hearing. The students are trained to evaluate, diagnose, and manage communication disorders. With a focus on clinical teaching-learning, the training consists of both theoretical and practical components. Under the guidance of experienced staff members, the students gain practical experience working with clients. The Rehabilitative Council of India has accredited this programme. B.ASLP broadly comprises Audiology and Speech language pathology.

Audiology is a healthcare field that focuses on hearing. It is a clinical profession with the special responsibility of assessing hearing capacity and treating impairments caused by hearing difficulty. Majority of audiology professionals work in settings related to health care, private practice, education, rehabilitation, and industry. Among them, private practice and other non-residential health care facilities have had the most increased recruitments during the past 20 years.

American Academy Association (2004) defines an audiologist as a person who, by virtue of academic degree, clinical training, and license to practice and/or professional credential, is uniquely qualified to provide a comprehensive array of professional services related to the prevention of hearing loss and the audiologic identification, assessment, diagnosis, and treatment of persons with impairment of auditory and vestibular function, and to the prevention of impairments associated with them. They also play an important role in the early detection of infant hearing loss and in the medical evaluation of auditory problems in children. Additionally, they also determine the necessity for assessing, fitting, and dispensing hearing aids, implantable technologies, and other assistive listening devices.

Audiology is an emerging field. Its beginnings can be traced to the development of clinics to assess the hearing of soldiers returning from the front lines who had experienced hearing loss due to exposure to overly loud sounds after World War II. The only audiologic services offered at the time were hearing impairment measurement and lip-reading and auditory rehabilitation training. The development of hearing aid technology was in its beginnings. At present, there has been a significant improvement in the profession's ability to address the issues posed by hearing loss from screening of hearing in infants on their first day of life to routinely identifying hearing losses.

The goal of the profession of speech language pathology and its members is provision of the highest quality treatment and other services consistent with the fundamental right of those served to participate in decisions that affect their lives. (Ad Hoc Committee on scope of practice in speech language pathology, 2004)

The speech-language pathologist (SLP) is defined as the professional who engages in professional practice in the areas of communication and swallowing across the lifespan. (ASHA, 2016). The following areas of service delivery are included: speech production, fluency, language, cognition, voice, resonance, feeding, swallowing, and hearing and swallowing. Speech-language pathology is a field that is always growing and in today's quickly evolving health care, educational, and other environments, scopes of practice sometimes overlap. Through their participation in a wide range of professional activities, these professionals provide services to individuals, families, groups, and the general public. They identify, assess, diagnose, recommend, and treat individuals of all ages who have or are at risk for speech, voice, language, communication, swallowing, and related disorders, as well as provides consultation and follow-up services. They offer counselling to both individuals and their family members or caregivers. Additionally, they choose, prescribe, dispense, and offer services to promote the efficient use of assistive, prosthetic, and alternative and augmentative communication technologies.
Originally viewed as one profession, audiology and speech language pathology emerged from the study of communication impairments. This developed from an educational concept where a single individual would be in charge of the evaluation and treatment of hearing, speech, and language in school-age children. There are certain professionals that hold certifications and licences in both speech-language pathology and audiology. Although there is still some overlap between the two fields today, they have developed into separate and distinct professions. However, the two professions remain connected due to their historical links and a common discipline of communication difficulties.

There are at least three group of patients in which audiologists and speech language pathologists need to work closely such as children with hearing impairment because good speech and oral language development requires good hearing. Children with auditory processing disorders because they typically are also found to have concurrent receptive language issues, learning disabilities, and attention deficits, and older people who have had a stroke or any other neurologic insult may have some degree of hearing impairment or auditory processing disorders. Though there are exceptions that all hearing impaired individuals do not possess speech/language disorder and vice versa. Consequently, it is crucial to evaluate both audiological and speech skills, particularly when evaluating children.

The U.S. Department of Labour estimates that from 2016 to 2026, there will be a 21 percent rise in the demand for audiologists' services and an 18 percent growth in demand for speech-language pathologists' services.

Griffin, Hutchins, and Meece (2011) found that, in comparison to students in small towns and higher income schools, students in rural and low-income schools were more likely to report interacting with teachers and finding them to be the most helpful in receiving information about career options.

Deshpande (2019) examined adolescents from various backgrounds' understanding of the field of audiology before, immediately after, and six months after participating in an educational programme on the profession of Audiology. According to the baseline survey's findings, about 25% of participants were only aware of the audiologist profession. It also concluded that strategies for raising awareness of audiology among prospective college students were beneficial.

In a group of university students, Richburg (2022) found that more students claimed to have learned more about speech-language pathology than audiology from their high schools. Prior to entering college, more girls than boys were aware of communication science disorders careers, and non-White students reported knowing less about audiology and speech-language pathology degree programmes and careers when compared to their White peers. Compared to responses from White/Caucasian students, neither the non-White group nor males reported minimal interested in pursuing CSD degrees or professions.

Atherton, Davidson and McAllister (2016) conducted a study on 18 Vietnamese health professionals who graduated as Vietnam's first university-trained SLPs in September 2012, highlighting their reflections at one year after graduation and highlighting their scope of practised as SLPs as well as the opportunities and challenges for advancing the practise of SLP in Vietnam. According to the findings, participants' reflections highlight the crucial role that the global SLP community plays as it collaborates with peers to raise awareness of and provide services for those with communication difficulties in under-served communities like Vietnam.

Chu, Tang, McConnell, Rasdi, and Yuen (2019) reported that more than half of the respondents had strong understanding of speech-language pathology and a moderate degree of awareness concerning communication impairments. 86.5 percent of them had generally favourable attitudes toward the field of speech-language pathology. In comparison to other occupations (teachers/services, business, engineers, and jobless/retired), health professionals showed a greater knowledge level and more favourable attitudes about communication impairments and speech-language pathology. Furthermore, to enhance present practices and expectations in service delivery, more education and awareness campaigns about communication disorders and speech-language pathology should be launched.

Emanuel, Donai, and Araj (2012) found that only 17 percent of the students self-reported knowing what an audiologist did and being able to appropriately characterise the field. About 30 percent of the students said that they had heard about audiology from family or friends. Students reported they choose their majors based more on their enthusiasm in a particular profession than on market-driven factors like employment prospects and pay scale.

Byrne (2010) surveyed students in education, occupational therapy, physiotherapy, and social work on their reasons for deciding against pursuing a career in speech-language pathology. As a result of the study's findings, many students made different career decisions because they were unaware of the speech-language pathology profession or knew little about the field's range of professional activity. Additionally, they noted that as the profession prepares to secure an appropriate supply of SLPs for future service delivery in the face of rising service demands and SLP shortages, the need for public education grows.

NEED FOR THE STUDY
Evaluating the degree to which prospective college students are aware of BASLP as a career option, the qualities of BASLP, and the influences on their career choice. This is crucial because numerous research indicates that very few individuals are aware of BASLP as a career option. As a result, raising awareness among them will be important for expanding the field of audiology and speech-language pathology in the future.
METHODOLOGY

AIM
The purpose of the study is to understand the level of awareness of BASLP as a career option, the courses and skills offered in the BASLP programme, and the factors influencing prospective college students’ career decisions (16-18 years of age) in Kerala. The study was carried out in two phases.

PHASE I: PREPARATION OF QUESTIONNAIRE
A self-administerable 14 closed-ended questions (yes/no) survey was developed that asks respondents whether they are aware of BASLP as a career option, what skills the programme offers, and what influences prospective college students' career choices. The metrics utilised include a self-administered questionnaire and demographic data. Ten SLPs with more than five years of expertise in the field validated the questionnaire once it had been developed. The SLPs’ corrections and suggestions were taken into account when creating the final questionnaire, which is shown below.

APPENDIX I:
1. Are you aware about the career option 'Bachelors in Audiology and Speech Language Pathology'?
   - [ ] Yes  [ ] No
2. Are you aware that Allied Health Science consists of a wide variety of paramedical courses?
   - [ ] Yes  [ ] No
3. Are you aware that this course is a part of Allied Health Science?
   - [ ] Yes  [ ] No
4. Are you aware that BASLP is a Rehabilitation Council of India affiliated course?
   - [ ] Yes  [ ] No
5. Are you aware that sixty four colleges in India alone provide this course?
   - [ ] Yes  [ ] No
6. Are you aware that Audiologists and Speech Language Pathologists play an important role in a medical team?
   - [ ] Yes  [ ] No
7. Are you aware that Audiologists play an important role in assessing hearing, balance and related disorders?
   - [ ] Yes  [ ] No
8. Are you aware that Speech Language Pathologists play an important role in assessment and management of speech, language and swallowing problems?
   - [ ] Yes  [ ] No
9. Are you aware that this course has job opportunities abroad and in the public and private sectors?
   - [ ] Yes  [ ] No
10. Are you aware that the areas of recruitment are Hospitals, Clinics, Rehabilitation Centers, Research Firms, Schools and Special schools?
    - [ ] Yes  [ ] No
11. Are you interested in choosing a medical option?
    - [ ] Yes  [ ] No
12. What would be the possible factors that may influence your career option?
    - [ ] Interest in the profession
    - [ ] University status
    - [ ] Candidate vacancy ratio
    - [ ] Influence of family members or other relatives
    - [ ] Placement
    - [ ] Salary
    - [ ] Others
13. Have you been provided with information about this career?
    - [ ] Yes  [ ] No
14. If yes, who provided the main source of information regarding this career?
    - [ ] Profession Guides
    - [ ] Family members/Relatives
    - [ ] Friends
    - [ ] Others
    - [ ] Not have been provided with information

PHASE II: PARTICIPANTS WITH INCLUSIVE AND EXCLUSIVE CRITERIA
Participants included randomly chosen 40 students who were between the age of 16-18 years studying in different schools in Kerala. Participants were required to have chosen Physics, Mathematics, Chemistry and Biology groups in the pre-university year.

STIMULUS USED:
The data was collected using the 14 closed-ended questions.

PROCEDURE
The validated online questionnaire was explained and mailed to the participants in February 2021. The participant’s task was to read and understand the questions carefully and choose the response.
ANALYSIS
The questionnaire which was administered on students with their responses were collected and a score of 1 was given for the response ‘yes’ and 0 for the response ‘no’. The data was then subjected for statistical analysis and the results are discussed below.

RESULTS AND DISCUSSION
The study's objectives were to assess the level of awareness of BASLP as a career option, the courses and competences it offers, and the variables affecting prospective college students’ (16–18 year age) career decisions in Kerala and the results obtained from the study are discussed below.

Table 1 showing the responses of higher secondary students regarding their awareness of the BASLP course as a career option (in %).

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
<th>%</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>30</td>
<td>75</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Question 2</td>
<td>20</td>
<td>50</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Question 3</td>
<td>9</td>
<td>22.5</td>
<td>31</td>
<td>77.5</td>
</tr>
<tr>
<td>Question 4</td>
<td>1</td>
<td>2.5</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>Question 5</td>
<td>1</td>
<td>2.5</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>Question 6</td>
<td>16</td>
<td>40</td>
<td>24</td>
<td>60</td>
</tr>
<tr>
<td>Question 7</td>
<td>22</td>
<td>55</td>
<td>18</td>
<td>45</td>
</tr>
<tr>
<td>Question 8</td>
<td>29</td>
<td>72.5</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>Question 9</td>
<td>21</td>
<td>52.5</td>
<td>19</td>
<td>47.5</td>
</tr>
<tr>
<td>Question 10</td>
<td>13</td>
<td>32.5</td>
<td>27</td>
<td>67.5</td>
</tr>
<tr>
<td>Question 11</td>
<td>35</td>
<td>87.5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Question 13</td>
<td>18</td>
<td>45</td>
<td>22</td>
<td>55</td>
</tr>
</tbody>
</table>

The BASLP programme was known to 75% of students, while 25% were unaware of it. Question 2 was whether students were aware of the range of programmes offered by Allied Health Sciences. The result was split evenly (50%) between those who knew about them and those who didn't. Responses of question 3 revealed that the percentage of students who knew that BASLP was a programme offered under Allied Health Sciences was only 22.5%. According to the responses to question 4, 77.5% of students were unaware that BASLP was a RCI-affiliated programme. The fifth question asked the students if they were aware that there were sixty four colleges in India alone that offered the programme. Only 2.5% of them were found to be aware of the colleges. Whether they were aware that audiologists and speech-language pathologists were part of the medical team was the subject of Question 6. Of them, 40% were aware that audiologists and SLPs were an important part of the team approach, while the other 60% were not.

Regarding the role of audiologists in evaluating hearing, balance, and associated disorders was asked in Question 7. When compared to the remaining 45%, 55% of them were aware of the role of audiologists. SLPs' responsibilities for diagnosing and treating speech, language, and swallowing issues were covered in question 8. It was found that 72.5 percent knew about the duties of SLPs. The options for employment in the public and private sectors, as well as abroad, were explored in Question 9. It was discovered that 52.5% of them were aware of the job openings around the world. The programmes' recruitment locations were the subject of question 10. Compared to 67.5 percent who were unaware, just 32.5 percent were aware of the numerous recruitment areas. Of them, 87.5% wanted to select a medical option for their career. Regarding the factors that might affect their choice of career, question 12 was
posed. The following factors were picked by the students, listed in order of importance: An interest in the field, Salary, Family or other relatives’ influence, Placements, Candidate vacancy ratio and the Status of the university. Question 13 revealed that only 45% of them have had access to information about the BASLP program. Question 14 concerned the source of the BASLP information. Many of them haven't heard anything about it at all. In contrast, the majority of students who acquired the information did it from family members and friends followed by career guides.

Table 2 showing the overall awareness of higher secondary students about the BASLP program.

<table>
<thead>
<tr>
<th>Overall awareness</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>59.57</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>40.43</td>
</tr>
</tbody>
</table>

The table 2 shows the percentage of higher secondary students who responded ‘Yes’ were 59.57% and ‘No’ were 40.43% about the awareness of the BASLP program in Kerala.

Table 3 showing the classification of awareness among the participants.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (0 to 4)</td>
<td>17</td>
<td>42.5</td>
</tr>
<tr>
<td>Moderate (5 to 8)</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td>High (9 to 12)</td>
<td>8</td>
<td>20</td>
</tr>
</tbody>
</table>

Figure 1 showing the graphical representation of the classification of overall awareness among higher secondary students.

Table 3 and Figure 1 represents how awareness of students were classified into levels. The classification scale consists of three divisions- Low (0 to 4), Moderate (5 to 8) and High (9 to 12). The obtained frequencies of the same were 17 (42.5%), 15(37.5%), and 8 (20%), respectively.

Therefore, It can be concluded that the prospective college students had a low level of awareness about the BASLP program, the courses it offers, and the skills it provides.

DISCUSSION
In India, the Bachelor of Audiology and Speech Language Pathology (B.ASLP) degree is a three-year academic programme (both theoretical and practical learning included) and also includes a one-year mandatory internship. Over time, the fields of audiology and speech-language pathology have been expanding. However, there is limited knowledge of the program, the skills taught, the areas for recruiting, and the roles of audiologists and speech-language pathologists among higher secondary students. The goal of the current study is to gauge how much prospective college students are aware of the BASLP program and the various aspects of it. The findings showed that the higher secondary students had a low awareness of the program and its various aspects in Kerala. Additionally, it was found that the students knew more about the field of speech-language pathology than audiology, which is consistent with Richburg’s (2022) investigation results.

Therefore, the BASLP programme awareness should be increased by conducting seminars in higher secondary schools where a quick overview of the programme and the many services one can offer in the field are presented. It would also be of great use for prospective students to attend seminars led by pioneers in the field on their experiences.Additionally, campaigns should be undertaken to educate parents and students about the programme and steps to access the various institutes in India. Since teachers are also the greatest source of information for many students in higher secondary schools as reported by the investigation by Griffin, Hutchins, and Meece (2011). Providing information to them can also be done.
SUMMARY AND CONCLUSION
The findings of the present study highlights the significance of boosting higher secondary students’ awareness of the programme for audiology and speech language pathology (BASLP) in order to provide the field with qualified individuals who can provide expertise. The program's scope will continually be expanding because the field has been growing since its origin. Since a student's higher secondary years are crucial for determining their future, it is crucial to host seminars and speeches on the program by experts in the field about their experiences in order to motivate the students. Parents should be included in these sessions as well as their awareness is also essential. Since the majority of students are ignorant of the institutions in India offering the programme, knowledge of the examination process and ways to access the various institutes is also crucial. A teacher’s role in shaping the future for their students is inevitable, therefore detailed awareness about the program and opportunities should be explained.

REFERENCES
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