

# **EVIDENCE BASED PRACTICE AMONG SPEECH AND LANGUAGE THERAPISTS**

By

**Sharif Asadur Rahman**

[sharifasads1t@gmail.com](mailto:sharifasads1t@gmail.com)

[February, 2019]



*This thesis is submitted in total fulfillment of the requirements for the subject  
RESEARCH 2 & 3 and partial fulfillment of the requirements for degree:*

**Bachelor of Science in Speech & Language Therapy  
Bangladesh Health Professions Institute (BHPI)  
Faculty of Medicine, Affiliated by  
University of Dhaka**

# **EVIDENCE BASED PRACTICE AMONG SPEECH AND LANGUAGE THERAPISTS**

By

Sharif Asadur Rahman

Session: 2014-2015

**Approved By**

**Signature of Supervisor.....**

**Nahid Parvez**

Lecturer, Department of Speech & Language Therapy  
BHPI, CRP

**Signature of Head of Department.....**

**Md. Sazzad Hossain**

Lecturer&Acting Head of the Department  
Department of Speech & Language Therapy  
BHPI, CRP.

## **Declaration**

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**I am Sharif Asadur Rahman**, want to confirm that any single discussion of my research project will not be harmful for other. All the sources used in this study have been cited correctly. All errors or inaccuracies are my own.

**Signature & Date**

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**Sharif Asadur Rahman 4<sup>th</sup> year, B.Sc. in Speech & Language Therapy  
BHPI, CRP, Savar, Dhaka  
Bangladesh**

## Dedication

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*Dedicated to.....*

*.....My Honorable parents and Beloved Family  
Members*

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| <b>LIST OF ABBREVIATION</b> |
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| Abbreviation | Explanation                                    |
|--------------|------------------------------------------------|
| <b>AHP</b>   | Allied Health Professionals                    |
| <b>BHPI</b>  | Bangladesh Health Professions Institute        |
| <b>CRP</b>   | Centre for the Rehabilitation of the Paralyzed |
| <b>EBP</b>   | Evidence Based Practice.                       |
| <b>EBM</b>   | Evidence Based Medicine                        |
| <b>KABQ</b>  | Knowledge Attitude Behavior Questionnaire      |
| <b>SLP</b>   | Speech & Language Pathologist                  |
| <b>SLT</b>   | Speech & Language therapy                      |
| <b>SPSS</b>  | Statistical Package for the Social Sciences    |

## **Acknowledgement**

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I would like to express my sincere gratitude to all those who have contributed in different ways during this research.

First and foremost profound gratitude to the Almighty Allah for giving me the courage and strength to complete the study.

I am thankful to my supervisor Nahid Parvez, Lecturer of Speech and Language Therapy Department, CRP for his excellent guidance throughout the research project and for being such an excellent supervisor. Also, thanks to our honorable sir Md. Sazzad Hossain, Acting head of SLT dept. BHPI, and the CRP Ethics Committee for giving permission to conduct the research.

I am grateful to the most important gift of my life “my caring family members”, no amount of gratitude is enough to express for my parents. Finally, I would like to be grateful to all of the participants of the study.

## EXECUTIVE SUMMARY

Evidence Based Practice has become a common terminology in the field of health profession. It is widely accepted that Evidence Based Practice is very important in improving patient outcome and improve quality of care. It is established that Speech and Language therapy profession needs to integrate research findings into clinical practice in order to improve the therapy outcomes. The purpose of this study was to investigate the knowledge, attitudes and behavior toward evidence-based practice (EBP) among the Speech and Language Therapists currently working in Bangladesh. A valid questionnaire was used to find out level of knowledge, attitude and behavior regarding EBP among Speech and Language Therapists. The total sample was 78 Speech and Language Therapist, with 86.6% response rate towards the Knowledge, Attitude and Behaviour Questionnaire (KABQ). Participants shows generally positive knowledge of EBP, they reported they were using Evidence Based Practice in their clinical practice and it was significantly improving patient outcome. SLTs has positive attitude toward EBP.

**Keywords:** *Evidence Based Practice, Knowledge, Attitude, Speech and Language Therapist.*

**1.1 Introduction:**

In the early 1990s introductory issue on the concept of evidence-based medicine (EBM) come out (Guyatt 1991). The publication represented evidence-based medicine (EBM) as a technique of dealing with the growing volume of evidence in medical research publications Sackett, Rosenberg, Gray, Haynes, & Richardson,(1996) then defined EBM as ‘the conscientious, explicit, and judicious use of current best evidence in making decisions concerning the care of individual patients’. This greatly emphasized the importance of clinical knowledge and expertise of every single clinician while using EBM, with the implication that clinicians should be taught the EBM guidelines. Its also applicable to speech& Language Therapy, where it is learned in the name evidence based practice (EBP). (Leslie and Coyle, 2010)

It is well established that evidence-based practice (EBP) refers to the use of the best available scientific evidence by the health care professionals along with clinical expertise, individual preferences, and considering patient values in order to render safe and risk-less health care as well as to improve clinical outcomes (Sackett et al. 1996). Anderson et al., (2005) and Brownson, Chriqui and Stamatakis, (2009) have emphasized that EBP has a fundamental impact on health care policy and provide guidance to health professionals in making most effective and very efficient judgment about treatment and patient care according to suggested practices.

In case of health care situation, Speech and Language Therapists have to get to the close connection with patients and their families and they are basically in charge to provide the direct intervention to the patient. Furthermore, it is well established that Speech and Language Therapy practice essentially need to be backed by research evidence to make decisions about patient by identifying and choosing most appropriate evidence-based interventions. (Filippini, Sessa, Giuseppe, & Angelillo, 2010).

Jette et al., (2003) reported that training, familiarity with and confidence in search methods, use of research databases, and critical appraisal tended to be associated with individuals with less than five years of experience. As the consequence of these

findings, we can notice that the literature has located different potential obstacle towards EBP in health professions. Several factors such as time limitation, research findings not easily being accessible and facing difficulties in understanding statistical analysis have been reported to be the greatest barriers faced by speech and language therapists in implementing EBP in the UK. Organizational barriers, such as poor access to journals, and lack of skills of the therapist have also been identified as important barriers. According to Bernstein Ratner (2006), it is an essential that barriers to the practical use of EBP are specified in order to open up a culture which promote EBP, and as a result, fulfill the space between research evidence and clinical practice.

## **1.2 Significance:**

While increasing EBP knowledge and skills is an essential learning outcome, the vital goal of EBP is to build up professional behavior in which EBP is integrated in the decision-making process of the SLT professional (Coomarasamy and Khan 2004). Growing EBP knowledge and skills only leads to behavior change if it is accompanied by the view that kind of change is both desirable and attainable (Niemivirta 1999).

Psychological theories also highlight the importance of our underlying beliefs in influencing attitudes (Ajzen, 2002). For example, if we believe that accessing, reading and applying the evidence to our practice we lead to tangible and essential benefits for patients, and then our attitudes to EBP are likely to be positive. Similarly, if we believe that EBP is something intimidating, complex and unlikely guide to important changes, then our attitudes are likely to be negative. Our beliefs are influenced by our experiences and the experiences of others, which is why it is important for SLTs to demonstrate and share with one another the positive benefits of using evidence-based procedures, plus tangible outcomes data where appropriate. A key target in any EBP-promoting strategy should be to make sure that all SLTs have an unified understanding of EBP strategies and processes, in addition a clear perception of how they are expected to apply these techniques in their own clinical practice. (Sackett et al., 1996)

Since self-efficacy and positive task value towards EBP are a prerequisite for actual EBP behavior. However, limited information is available regarding knowledge, attitudes, and behaviors of Speech and Language Therapists toward EBP in context of Bangladesh. Speech and Language Therapists have decision-making responsibilities and they play an important role in the delivery of health care. Moreover, it is important to integrate the appropriate evidence into the activity of all health care professionals. Therefore, it is extremely important to establish whether Speech and Language Therapists are able to integrate research evidence into the practice in order to deliver best intervention and, according to our knowledge, no study in Bangladesh has yet addressed these questions. So investigator will try to formulate answer to these questions in this study.

### **1.3 Literature review:**

Some of the recent surveys across Allied Health Profession (AHP) groups have indicated generally positive perceptions toward the principals of EBP (Upton, 1999; Metcalfe, Lewin, Wisher, Perry, Bannigan and Moffet, 2001; Pennington, 2001; Vallino-Nepoli and Reily, 2004; Zipoli and Kennedy, 2005). In comparison studies that use deeper investigation of AHP groups perceptions about EBP, for instance using qualitative interviews, have reported that personnel expressed considerable dilemmas and reservations about how they were supposed to be employing these principles (Roddam, 2003; Tse, Lloyd, Penman, King and Bassett, 2004). There is even evidence that some of us feel a sense of guilt about prioritizing time for EBP activities (such as reading and appraising research literature) over direct appointed schedule with clients (Lankshear, 2002).

Research has shown that peoples attitude can predict their intentions to implement evidence in practice according to Bonetti, Eccles and Johnston, 2005. The fact is, changes in attitude are likely to be important in bringing sustained modification in behavior of professionals, which may in the end benefit care of patients. (Coomarasamy and Khan, 2004)

Recently it has been a growing awareness that clinicians' perceptions of EBP are integrated with their personal values and beliefs and these are also related to their professional role and to their views of what it means to engage patients in decision making, according to Fish and Coles (as cited in Roddam and Skeat, 2010). Specific experiences and exposure to critical times during workshop and professional development may also play a big role. Zipoli and Kennedy (2005) reported that open to research during undergraduate training, and the practical manifestation of the use of research in the workplace in the early years of clinical practice strongly influenced on SLTs' personal attitude towards EBP. The place in which we work may be important, as these researchers also found distinct differences of perceptions were reported by SLTs who worked in the community compared to those in the hospital-based teams.

There are so many studies across health professionals groups showing that professionals sensed they were in lack of fundamental skills for EBP, along with an evident lack of confidence in self-directed reading and critical appraisal of research reports (Taylor, 2000; Upton and Upton, 2006). Some of the factors close to negative

personal attitude towards EBP might be identified in low-level of confidence in these skills, which encompass awareness of research designs, electronic databases searching, critical appraisal of research papers, instrumentation and measuring clinical change. SLTs required to be skilled in analyze the evidence with confidence, to assure whether it is valid, reliable and relevant to their own clinical circumstances. It is also important that SLTs realize that they need to defend against drawing the incorrect conclusions from published studies. We just need to consider changing our clinical practice only when we are fully assured about the appropriateness of the research evidence in our own local clinical circumstances, and when we have considered it in accordance with our own clinical knowledge and the preferences of patients. (Roddam and Skeat, 2010)

Distinguishing and addressing these skills gaps need to be an essential element of a systematic approach to support EBP (Metcalf, et al., 2001). Following the primary training in EBP skills, the next challenge appears to be maintaining therapists' confidence, with indications that regular continuous practice in critical appraisal of research findings is an essential tool of achieving this (Bennigen and Hooper, 2002). There are some determined ways to follow so that this can be achieved, including joining journal clubs, mentoring and clinical supervisions, participating in interest groups and other schemes where critical appraisal is undertaken and participating in formal continuing education programs. Making use of external resources, for example, via networking with local universities, can provide access to expertise and skills which can be fruitful in engaging EBP locally. Collaborative efforts, whereby clinical SLTs formulate and prioritize the silent clinical questions to guide the direction of most necessary applied clinical research, it could be one benefit of this approach which would not only expose clinicians to research skills but add to the evidence base. (Roddam and Skeat, 2010)

The expectation that there will be an inevitable cascade effect of research knowledge into clinical practice has been shown to be excessively simplistic and essentially unpredictable (Dopson et al. 2002). The inherent challenges of EBP for all health care professionals comprise the need for a quality research evidence base, plus the skills and organizational support to utilize those research findings. EBP presents a challenge to us all, and we need to consider best way to meet this challenge by ascertain that we

are appropriately skilled and prepared, with cultures and contexts that facilitate inclusion of EBP.

Context and culture can promote or obstruct all aspects of EBP. In fact, while most of the research into barriers for EBP has mainly focused on individual aspects, there is a growing awareness that more emphasis should be put on the organizational level (MacGuire, 2006). Even when considering individual factors, like knowledge and skills, the system in which they work plays a fundamental role in whether or not SLTs can enter in training, mentoring, and so on. Context and culture are also crucial influences on whether or not SLTs are able to make changes to their clinical work on the basis of the evidence.

In order to understand the knowledge, attitudes and behavior of SLTs towards EBP might assist in determining fields requiring further attention in applying EBP. Previous surveys to get understanding of the knowledge, attitude, and behavior of practitioners regarding EBP, have specified the attitudes of various professionals concerned in health care. In a study concerning attitudes, beliefs, behavior and knowledge of physical therapists established, they had belief in EBP that it will improve patient care, also they had positive attitudes towards EBP and good knowledge of EBP but enforcement was low (Jette et al., 2003). Another article based on the attitudes and knowledge of allied health professionals found that they also had good attitudes and knowledge regarding EBP. (Heiwe et al., 2011)

#### **1.4. General objective:**

- To find out the knowledge, attitude and current practice of Evidence Based Practice among Speech and Language Therapists.

#### **1.5. Specific objective:**

- To find out the level of knowledge and understanding of the importance of Evidence Based Practice among the Speech and Language Therapists of Bangladesh.
- To assess the attitude of Speech and Language Therapists regarding Evidence Based Practice for better quality services to the patients and their professional development.
- To determine if Speech and Language Therapists are up to date with research evidence and critical appraisals of research findings.
- To find out whether Speech and Language Therapists making the best use of research evidence in their current practice and engaging ongoing continuous development by integrating evidence with experience.
- To find out Speech and Language Therapists perception of barriers in implementing Evidence Based Practice.

## **1.6 Conceptual Framework**

### **Operational Definitions:**

#### **1.6.1 Evidence-based Practice (EBP):**

Evidence-based Practice (EBP) was initially defined as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. Integrating with persons' clinical expertise with the most obtainable clinical evidence from systematic review of thesis. Its a systematic approach that solves clinical problem following the integrating of the best available research evidence with clinical experience and patient values. (Sackett, 1997)

#### **1.6.2 Evidence Based Speech and Language Therapy:**

In health care environment, Speech and Language Therapists have the close contact with patients and their families and they are ideally in charge to provide direct intervention of the patient. Moreover, it is well recognized that Speech and Language Therapy practice must be supported by research evidence to make decisions about patient by identifying and selecting appropriate evidence-based interventions.

#### **1.6.3 Knowledge and Attitude:**

Research has shown that people's attitudes are a good predictor of their intentions to implement evidence in practice (Bonetti, Eccles and Johnston, 2005). The more positive the attitude the more the individual will be interested and favorable towards evidence based practice. In fact, changes in attitude are likely to be important in bringing about sustained changes in behavior of professionals, which may ultimately benefit care of patients. (Coomarasamy and Khan, 2004)

This section presents the methodological process of the study designed by the investigator to meet the study aim and objectives. The chapter will also provide an overview of the research design and describe the methodology used in the study.

### **2.1 Study design:**

This study was designed as a cross-sectional survey (Mann, 2003). Cross-sectional study was selected because in this way it is possible to identify a defined population at a particular point of time (Oslen et al, 2004). A cross sectional study can evaluate a large number of participants at little cost or effort and ways to provide a still picture of outcome and also the characteristics associated with it within a specific period of time (Levin, 2006).

### **2.2 Study Location:**

The study was conducted in Centre for the Rehabilitation of paralyzed (CRP), data were collected from different districts of Bangladesh.

### **2.3 Study Population:**

All certified Speech and Language Therapist who are directly involved in clinical practice in Bangladesh.

### **2.4 Sample Size:**

A group of subjects that will be selected from the population, who will be used in pieces of research is called sample (Hicks, 2000). Larger sample is the representative of the population in a survey study, but in many situations, it is not possible for the researcher both for practical and financial reasons (Hicks, 2000)

The investigator will use a sampling equation to determine the sample size. The equation will be according to sample size-

$$n = \frac{z^2 p (1-p)}{d^2}$$

$$= \frac{(1.96)^2 \times 0.5 (1-0.5)}{(0.05)^2}$$

$$= 384$$

Where,

n= required sample size,

z = confidence level at 95% (standard value of 1.96)

P = estimated prevalence of subject (0.5),

Correction for finite population:

$$\text{Hence } (n) = \frac{n}{1 + \frac{n-1}{N}}$$

Sample size =  $[n/\{1+(n-1)/N\}]$       Total number of SLT, N= 115

Sample size =  $[384/ \{1+ (384-1)/115\}]$

Sample size = 88

Determined sample size was 88 samples among 115 qualified SLT. But only 78 samples were respond to the questionnaire and return questionnaire. Finally 78 SLT were the sample of this study. Sample was selected in accordance with inclusion and exclusion criteria.

## **2.5 Sampling Procedure**

The researcher used convenience sampling. Convenience sampling is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study.

So for this research convenience sampling was used as the researcher has time limitation, also sampling will maintain the inclusion and exclusion criteria.

## **2.6 Inclusion criteria:**

- ✓ SLT professionals in Bangladesh
- ✓ SLT professionals who has experience of clinical practise.

## **2.7 Exclusion criteria:**

- ✓ SLT interns will not be included in this study.
- ✓ Who are not involved in clinical practise over 5 years.
- ✓ Who has switched to different profession.
- ✓ Who has no clinical experience after graduation.
- ✓ Who doesn't practice in Bangladesh.
- ✓ SLT professionals who are unwilling to participate in this study.

## **2.8 Data Collection Tools:**

Data was collected by modified structured questionnaire. The EBP-Knowledge Attitude Behavior Questionnaire (EBP-KABQ) was used to collect and record participants' response.

## **2.9 Data collection procedure:**

Data was collected using EBP-Knowledge Attitude Behavior Questionnaire (EBP-KABQ). It contains a series of questions on knowledge attitude and behavior subset. Investigator collected data in two procedures, by printed self-reported questionnaire and via e-mail. Majority of the data was collected by printed self reported questionnaire. Participant was given a questionnaire form to fill up, after handed questionnaires and given guidance on how to complete the questionnaires. 20 data were collected via e-mail.

## **2.10 Data Analysis:**

Investigator has analyzed the data accordingly. Descriptive statistical analysis was used to analyze quantitative data. Mean, standard deviations, frequency and cross tables was used in the description of variables. The data was analyzed using the Statistical Package for the Social Sciences version 22.0.

## **2.11 Ethical consideration**

The project proposal of this study was presented to the Institutional Review Board where Acting Head, Research and Evaluation Officer, lecturer of Speech & Language Therapy Department were present. The ethical committee has given the approval to conduct this study. The Acting Head of Speech and Language Therapy Department and Principal of Bangladesh Health Professions Institute had given written permission to start data collection. Permission was also taken from head of the organizations from where researcher has collect data. Every participant in this study was informed about the purpose and given informed consent. Participants was informed that they have could withdraw their response during session for any disagreement. Participants' information and their individual identity were kept in security and left in secured place so their confidentiality would be guaranteed and respected. The participants were informed that their contribution in this study wouldn't be reason of any harm.

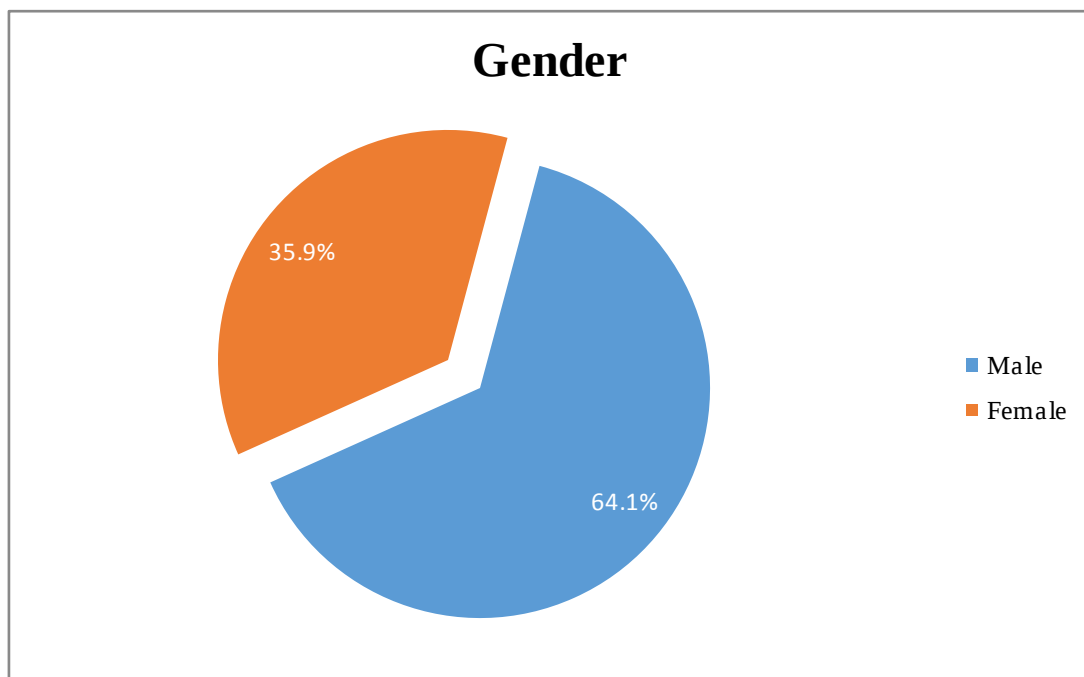
## **2.12 Pilot Study**

Investigator conducted a pilot study before starting the main data collection. Investigator had chosen some participants who were not included in the main study. Pilot study is a primary test of the main study to identify any problems which need to be corrected and it is always important to run a field test before starting the final one. Because it testify for appropriate subject selection and also confirm the suitability of data collection tool (EBP-KAB Questionnaire). From this study investigator got an idea of how much time is required for finishing data collection. Investigator was aware of any unexpected situation before final data collection as a result of conducting pilot study.

Data were analyzed by descriptive statistics and calculated as percentages and presented by using bar graphs, pie charts and tables. Total 90 questionnaire was disseminated among the SLTs only 78 (86.6% response rate) has respond to questionnaire. 58 (74.35%) completed the questionnaires manually on paper, and 20 (25.64%) completed the questionnaires electronically.

### 3.1 Demographic characteristics of the participants

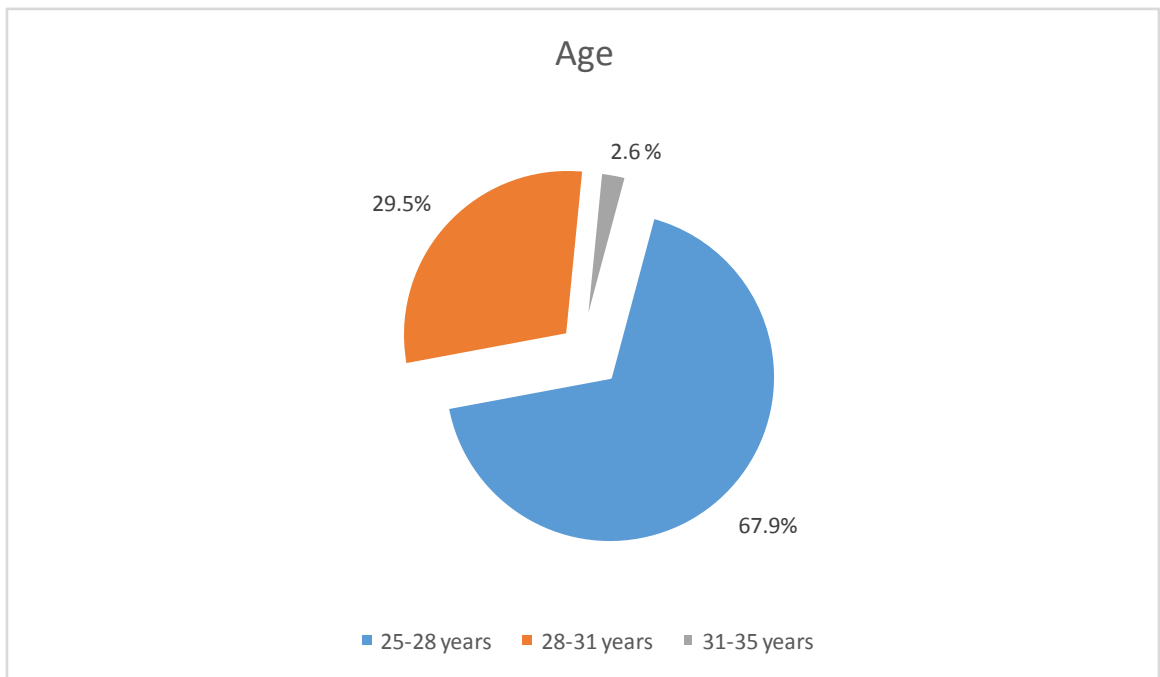
#### 3.1.1 Gender ratio:



**Figure 3.1: Gender of the participants**

The pie chart above presents gender of the participants. Here in this chart we can see that among total 78 participants, number of male is 35.9% (28) and number of female is 64.1% (50).

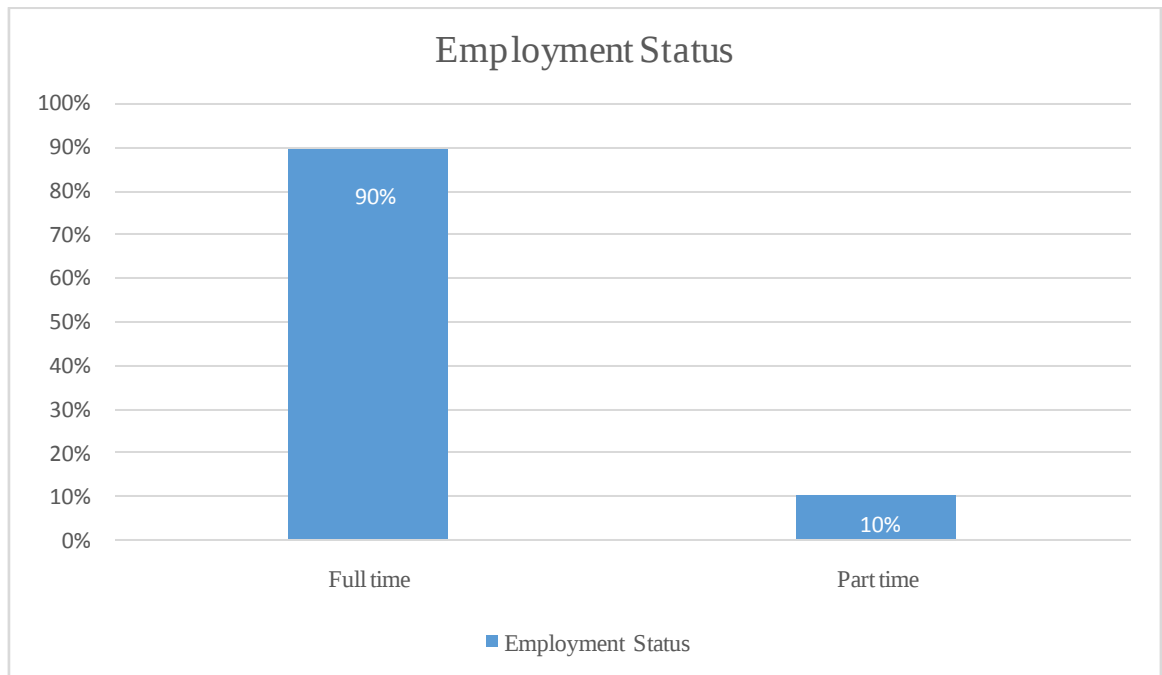
### 3.1.2 Age:



**Figure 3.2: Age level of the participants**

This chart represents the age range of the participants. Here we can see that 67.9% (53) of participants age is between 25-28 years, 29.5% (23) of participants age is between 28-31 years and 2.6% (2) of participants age is between 31-35 years.

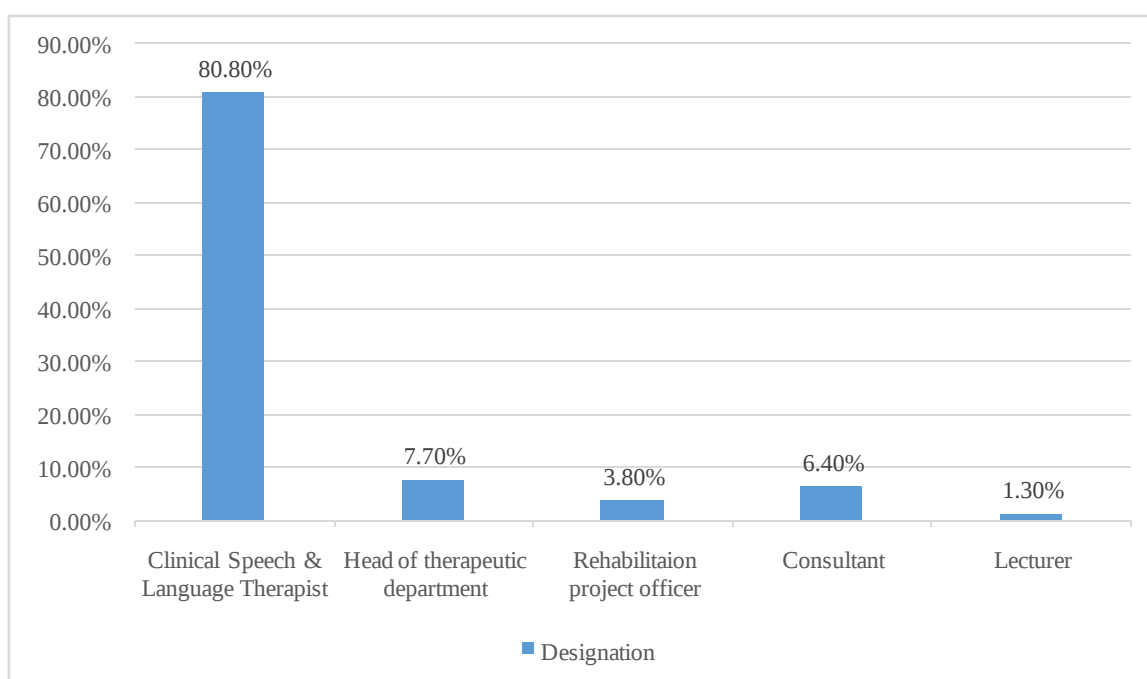
### 3.1.3 Employment Status



**Figure 3.3: Employment status of the participants**

The bar chart above shows the employment status of the SLTs. Among the participants 89.7% (70) of SLT has full time employment, and the rest 10.3% (8) of SLT is part time employed.

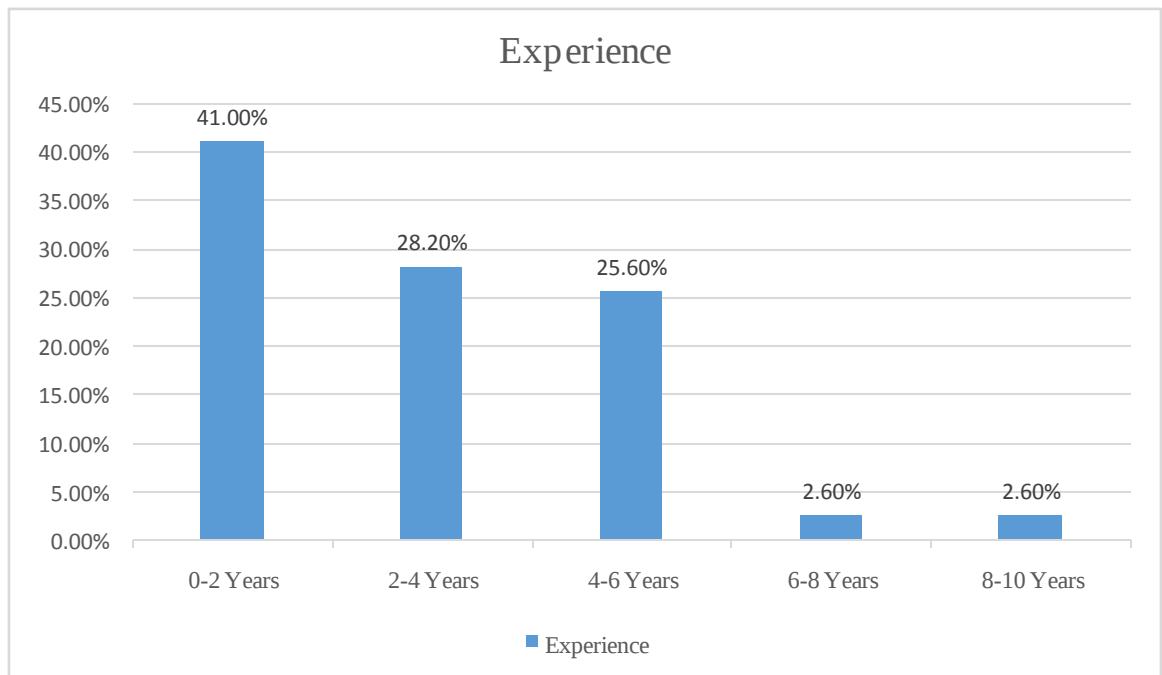
### 3.1.4 Designation



**Figure 3.4: Designation of the participants**

In the bar chart above shows the designation of the participants. In which we can see that among 78 participants, 80.80% (63) of SLTs are Clinical Speech and Language Therapist. 7.70% (6) are in position of Head of Therapeutic Department. 3.80% (3) are Rehabilitation Project officer, 6.40% (5) are Consultant, and 1.30% (1) is in position as Lecturer.

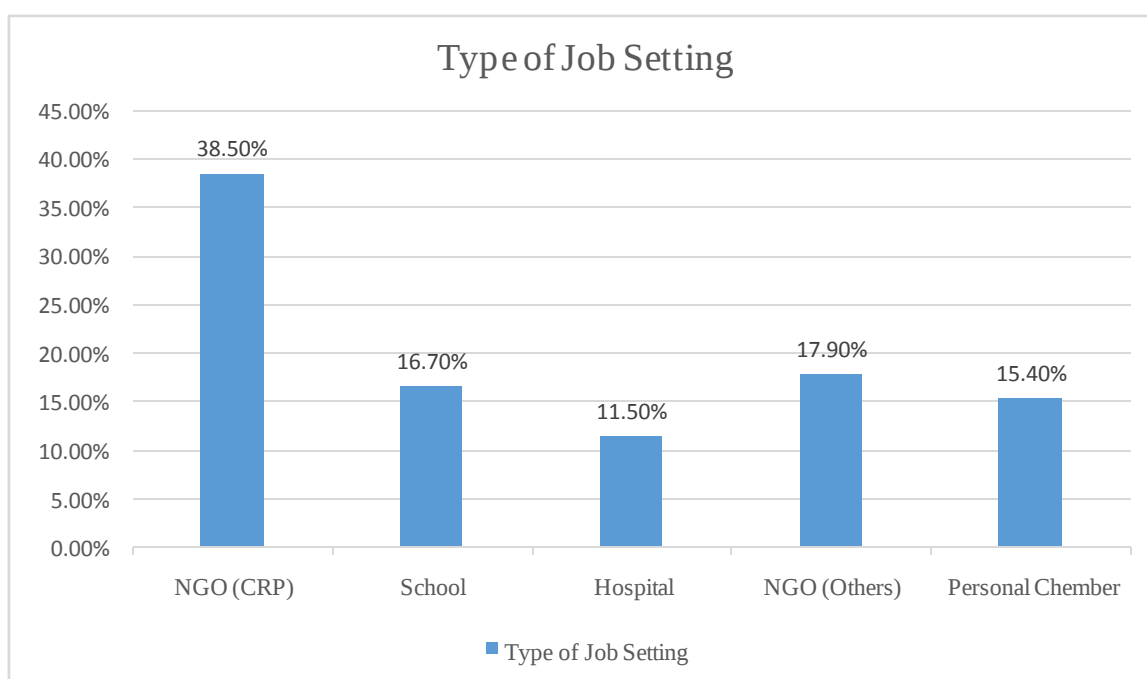
### 3.1.5 Experience



**Figure 3.5: Experience of the participants**

The bar chart above presents the experience level of the participants. Among total 78 participants, 41.0% (32) participant has experience level in between 0-2 years, 28.20% (22) participant has experience level in between 2-4 years, 25.60% (20) participant has experience level in between 4-6 years, 2.60% (2) participant has experience level in between 6-8 years, and 2.60% (2) has experience level in between 8-10 years.

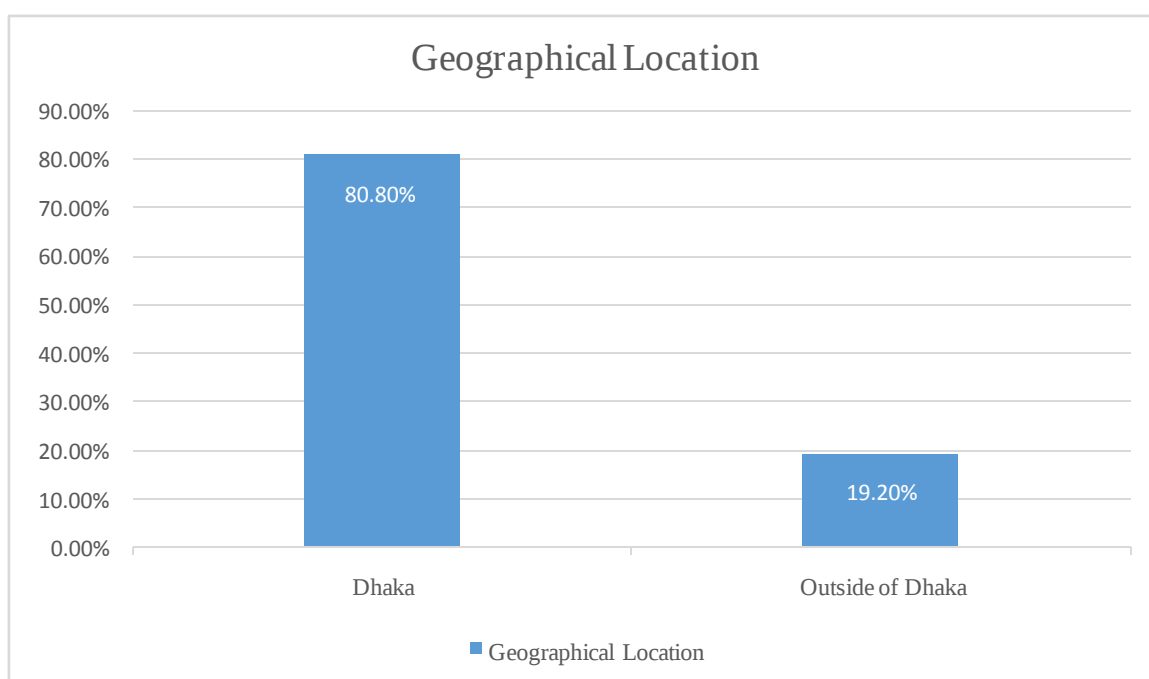
### 3.1.6 Type of Job Setting



**Figure 3.6: Type of Job Settings of the participants**

In this bar chart we can see the type of job settings of the participants. Participants work in various settings, 38.5% (30) are in NGO (CRP), 16.7% (13) are in Schools, 11.5% (9) are in Hospitals, 17.9% (14) are in other NGOs, and 15.4% (12) are in personal chambers.

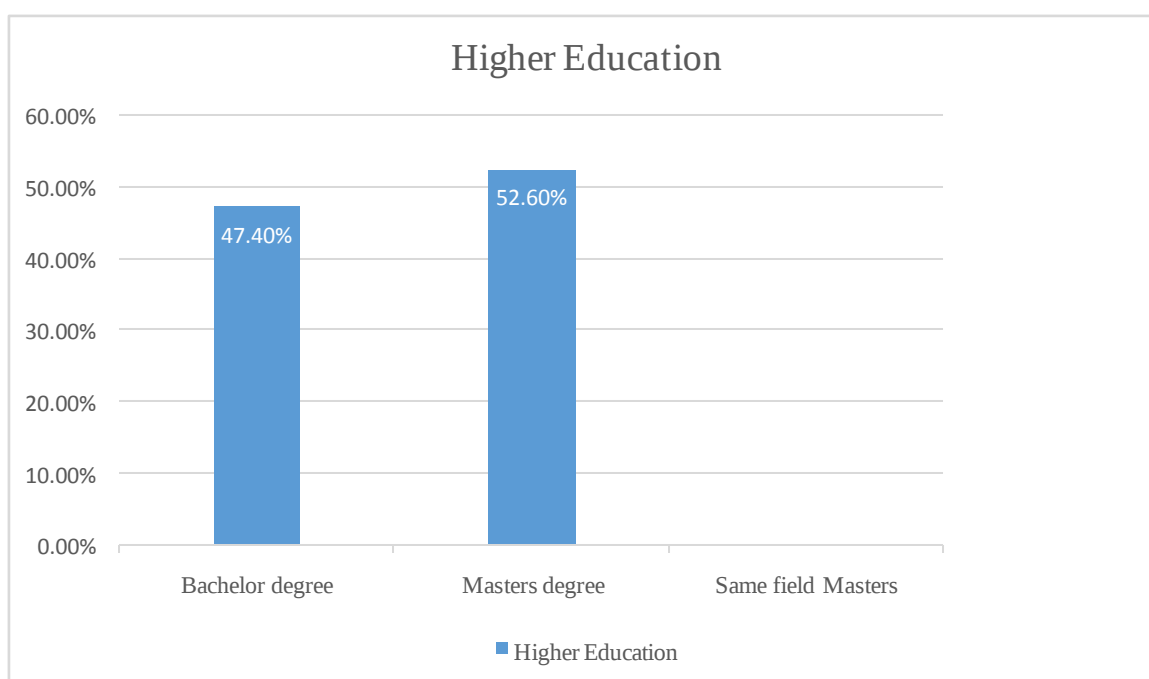
### 3.1.7 Geographical Location



**Figure 3.7: Geographical Location of the participants**

The bar chart above shows the location of workplace. Geographical locations of the total participants 80.8% (63) are in different areas of Dhaka and the rest 19.2% (15) are in areas outside of Dhaka

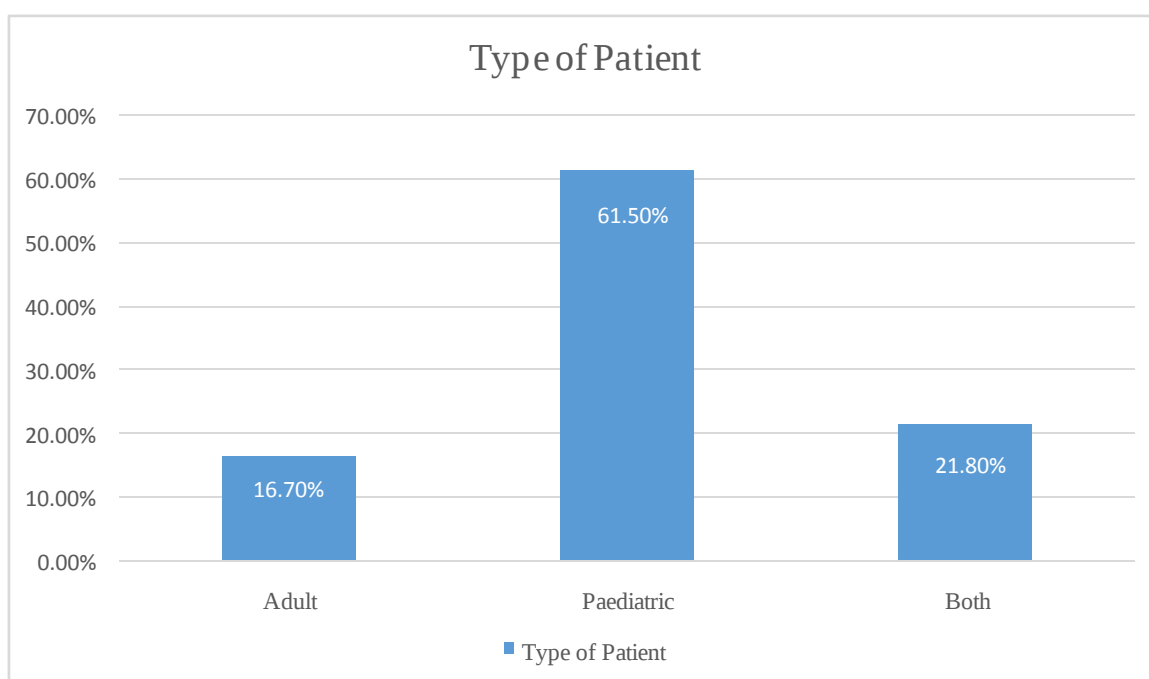
### 3.1.8 Higher Education



**Figure 3.8: Higher Education of the participants**

In the bar chart above shows the level of higher education of the participants. Here 47.4% (37) of the SLTs are only bachelor degree holder, and 52.6% (41) of the SLT has Master degree. Among the participants no one has completed masters on the same field.

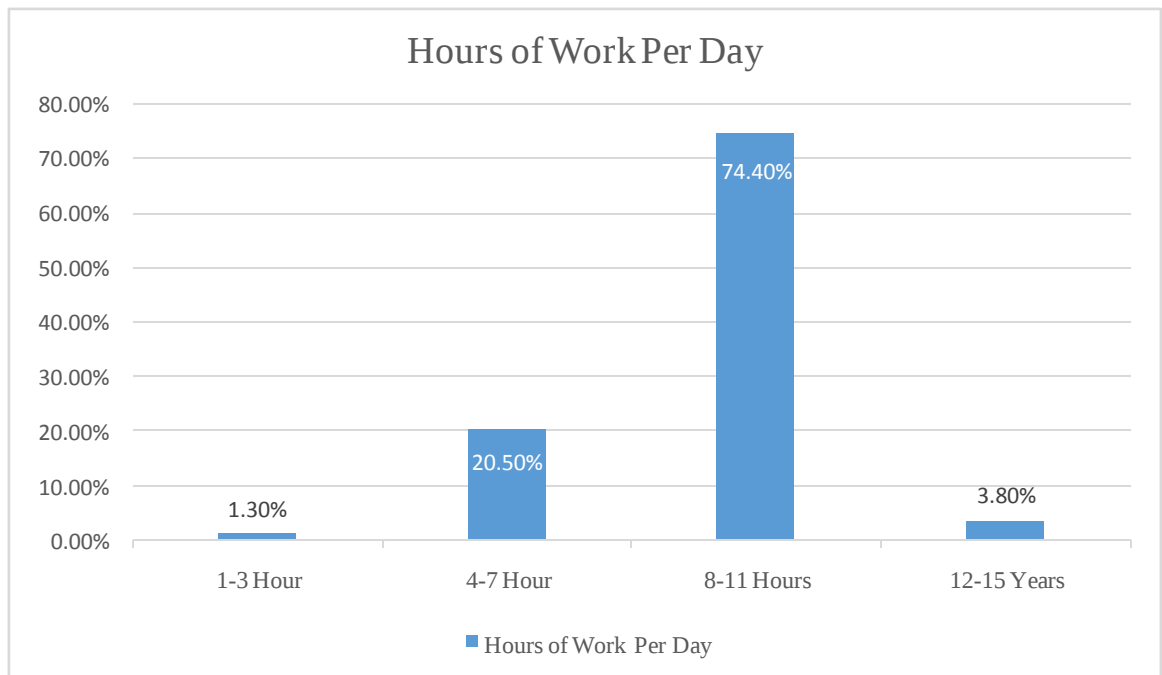
### 3.1.9 Type of Patients



**Figure 3.9: Type of Patients treated by participants**

This bar chart above shows the type of patients treated by SLTs. Among the total participants 16.7% (13) are in Paediatric unit, 61.5% (48) are in Adult unit and 21.8% (17) are involved in both Paediatric and Adult.

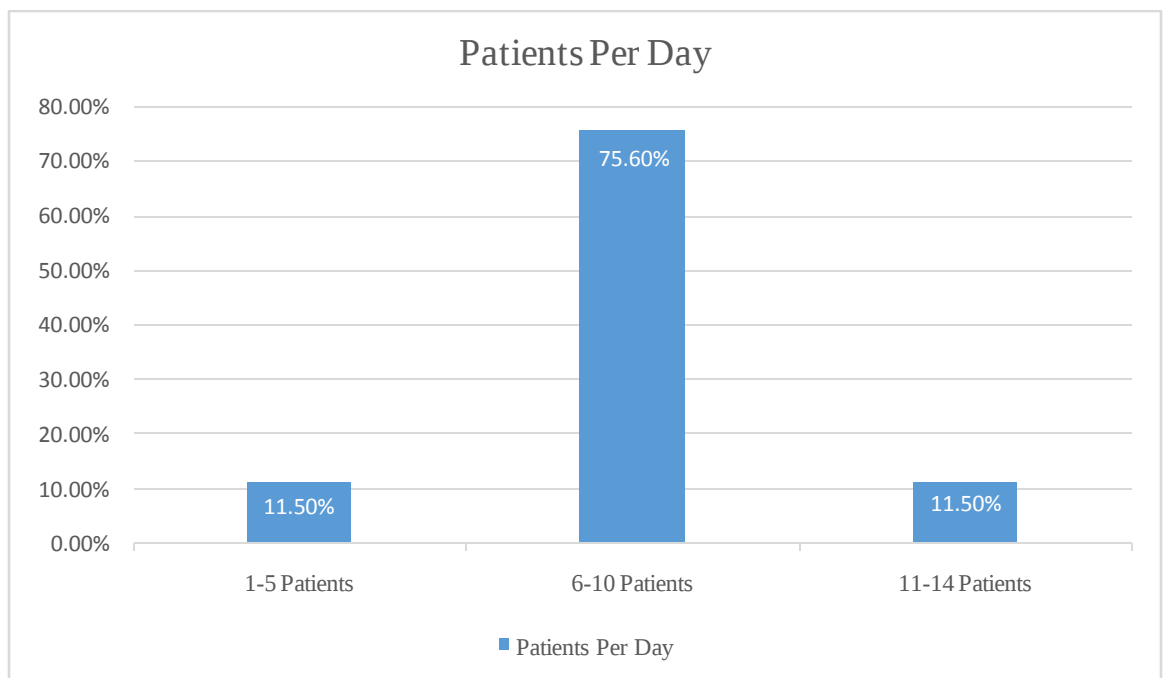
### 3.1.10 Hours of Work per Day



**Figure 3.10: Hours of work per day**

In this bar chart that shows hours of work per day. Among the total 78 participants, 1.3% (1) works 1-3 hours per day, 20.50% (16) works 4-7 hours per day, 74.4% (58) works 8-11 hours per day, and 3.8% (3) works 12-15 hours per Day.

### 3.1.11 Patients per Day

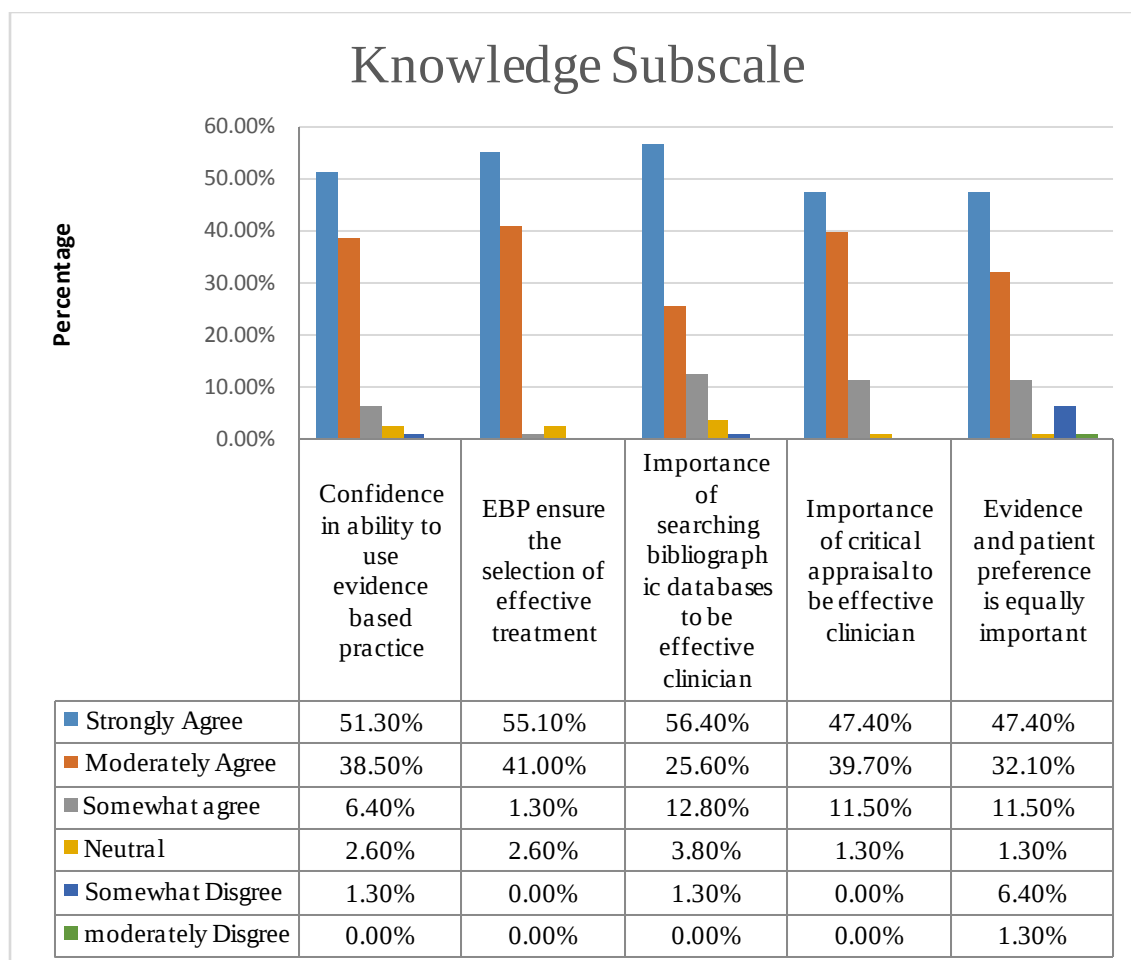


**Figure 3.11: Patients per day**

This bar chart above presents the number of patients per day of SLTs. Among total 78 participants, 11.5% (9) clinician treats 1-5 patients per day, 75.6% (59) clinician treats 6-10 patients per day, 11.5% (9) clinician treats 11-14 patients per day.

## 3.2 KAB Questionnaire Frequency

### 3.2.1: Measure of Knowledge towards Evidence Based Practice

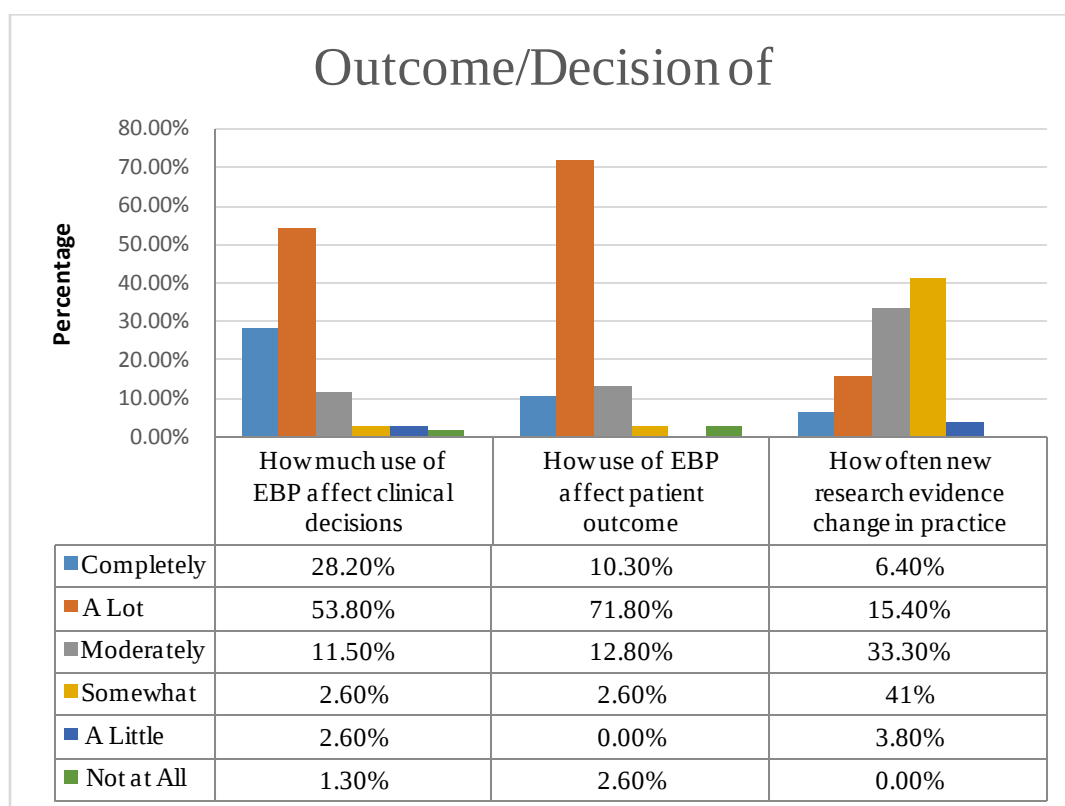


**Figure 3.2.1 Knowledge Subscale**

In Knowledge Subscale, there are 5 questions in which participants rate each question with a 7 point likert scale, in this subscale participant given a range of response, “Confidence in ability to use evidence based practice” in which 51.3% (40) is strongly agree, 38.5% (30) is Moderately agree, 6.4% (5) is somewhat agree, neutral 2.6% (2) and 1.3% (1) is somewhat disagree. In statement like “EBP ensure the selection of effective treatment” participants response was 55.1% (43) is strongly agree, 41% (32) is moderately agree, 1.3% (1) is somewhat agree, and neutral 2.6% (2). . In statement like “Importance of searching bibliographic databases to be effective clinician” participants response was 56.4%% (44) is strongly agree, 25.6% (20) is moderately agree, 12.8% (10) is somewhat agree, and neutral 3.8% (3) and one is somewhat disagree 1.3%. . In statement like “Importance of critical appraisal to be effective clinician” participants response was 47.4% (37) is strongly agree, 39.7% (31) is moderately agree, 11.5% (9) is somewhat agree, and neutral 1.3% (1). In statement like “Evidence and patient preference is equally important” participants response was 47.4% (37) is strongly agree, 32.1% (25) is moderately agree, 11.5% (9) is somewhat

agree, neutral 1.3% (1), 6.4% (5) is somewhat disagree and 1.3% (1) is moderately disagree.

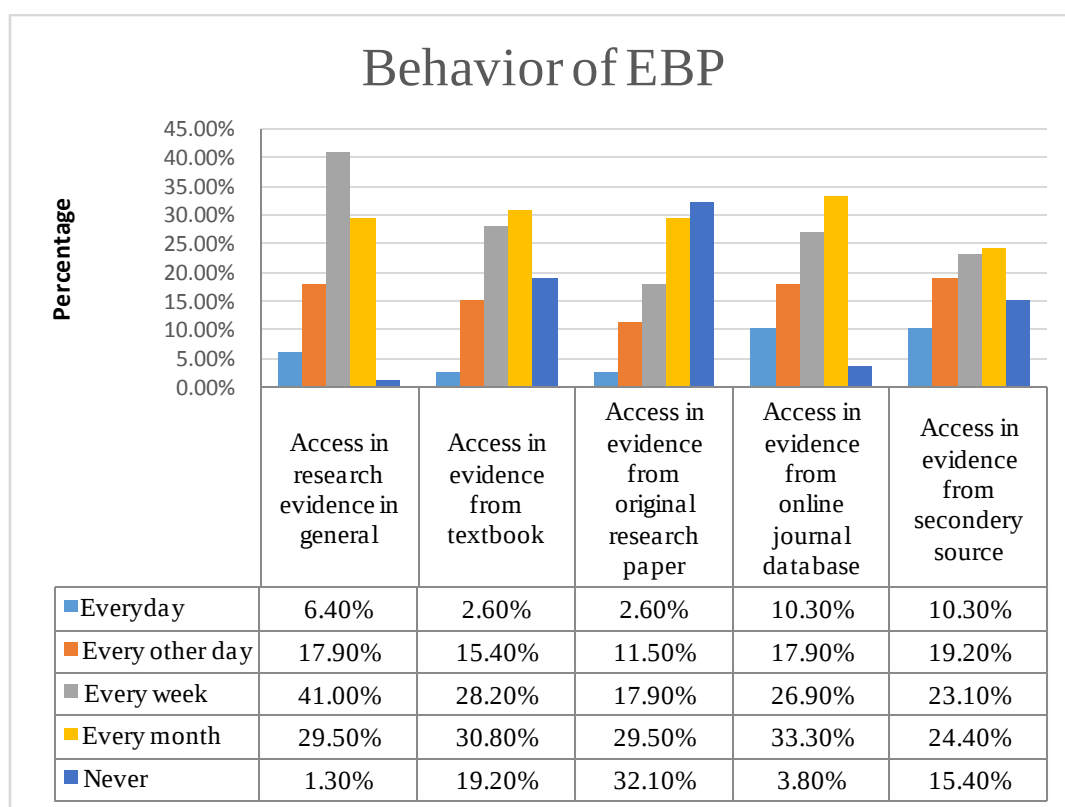
### 3.2.2 Measure of Outcome and Decision towards Evidence Based Practice



**Figure 3.2.2 Outcome / Decision subscale**

In this subscale there are 3 statements. Participants responded in statements like “How use of EBP affect clinical decisions” 22 participants 28.2% rated “completely”, 42 participants rated “a lot” 9 participants 11.5% rated “moderately” 2 participants 2.6% rated “somewhat” 2.6% rated “a little” and 1.3% said “not at all”. “How use of EBP affect patient outcome” 8 participants 10.3% rated “completely”, 56 participants 71.8% rated “a lot” 10 participants 12.8% rated “moderately” 2 participants 2.6% rated “somewhat” 2.6% (2) rated “not at all”. In the statement “How often new research evidence change in practice” 5 participants (6.4%) rated “completely”, 12 participants (15.4%) rated “regularly” 26 participants (33.3%) rated “frequently” 32 participants (41%) rated “occasionally” and 3.8% rated “not at all”.

### 3.2.3 Measure of Behavior towards Evidence Based Practice



**Figure 3.2.3 Behavior Subscale**

In behavior subscale, statements like “Frequency of access in research evidence in general” only 6.4% (5) participants’ access every day. 17.9% (14) participants access every other day, 41% (32) participants access every week, and 29.5% (23) participants access every month, and 1.3% (1) participant says never. “Frequency of access in research evidence from textbook” only 2.6% (2) participants access every day. 15.4% (12) participants access every other day, 28.2% (22) participants access every week, and 30.8% (24) participants access every month, and 19.2% (15) participant said never. “Frequency of access in research evidence from original research paper” only 2.6% (2) participants access every day. 11.5% (9) participants access every other day, 17.9% (14) participants access every week, and 29.5% (23) participants access every month, and 32.1% (25) participant said never. “Frequency of access in research evidence from online database” maximum 10.3% (8) participants access every day. 17.9% (14) participants access every other day, 26.9% (21) participants access every week, and 33.3% (26) participants access every month, and 3.8% (3) participant said never. “Frequency of access in research evidence from secondary sources” only 10.3% (8) participants access every day. 19.2% (15) participants access every other day, 23.1% (18) participants access every week, and 24.4% (19) participants access every month, and 15.4% (12) participant said never.

### 3.2.4 Measure of Attitude Subscale towards Evidence Based Practice

**Table 3.1: Attitude subscale**

| Questions | A Lot          |                  | Moderate       | Some    | A Little          |                     | Not at All        |
|-----------|----------------|------------------|----------------|---------|-------------------|---------------------|-------------------|
| AQ14      | 57.70%         |                  | 39.70%         | 2.60%   | 0.00%             |                     | 0.00%             |
| Questions | Strongly Agree | Moderately Agree | Somewhat agree | Neutral | Somewhat Disagree | Moderately Disagree | Strongly Disagree |
| AQ15      | 2.6%           | 16.7%            | 14.1%          | 29.5%   | 6.4%              | 11.5%               | 19.2%             |
| AQ16      | 12.8%          | 19.2%            | 20.5%          | 12.8%   | 21.8%             | 6.4%                | 6.4%              |
| AQ17      | 10.3%          | 10.3%            | 26.9%          | 10.3%   | 14.1%             | 21.8%               | 6.4%              |
| AQ18      | 2.6%           | 10.3%            | 11.5%          | 5.1%    | 20.5%             | 21.8%               | 28.2%             |
| AQ19      | 17.9%          | 15.4%            | 24.4%          | 20.5%   | 9%                | 12.8%               | 0.00%             |
| AQ20      | 55.1%          | 20.5%            | 12.8%          | 10.3%   | 0.00%             | 1.3%                | 0.00%             |
| AQ21      | 19.2%          | 23.1%            | 29.5%          | 21.8%   | 3.8%              | 1.3%                | 1.3%              |
| AQ22      | 53.8%          | 29.5%            | 14.1%          | 1.3%    | 0.00%             | 1.3%                | 0.00%             |
| AQ23      | 60.3%          | 29.5%            | 6.4%           | 3.8%    | 0.00%             | 0.00%               | 0.00%             |
| AQ24      | 7.7%           | 16.7%            | 23.1%          | 21.8%   | 5.1%              | 11.5%               | 14.1%             |
| AQ25      | 1.3%           | 5.1%             | 10.3%          | 2.6%    | 9%                | 9%                  | 62.8%             |
| AQ26      | 6.4%           | 2.6%             | 0.00%          | 3.8%    | 12.8%             | 19.2%               | 55.1%             |

**Table 3.1: Attitude subscale**

In this table attitude subscale is presented, in the first statement, “Confidence in clinical decision making” among the participants 57.7% (44) rated a lot, when 39.7% (30) rated moderate and the rest 2.6% (2) rated some. The second statement was “EBP is a cookbook approach which disregards clinical experience” in which 2.6% strongly agreed, 16.7% moderately agreed, 14.1% is somewhat agreed, while maximum 29.5% is neutral, rest 6.4% somewhat disagree, 11.5% is moderately disagreed and 6.4% is strongly disagreed. In third statement “it’s easy to find research” in which 12.8% rated strongly agree, 19.2% rated moderately agree, 20.5% rated somewhat agree, 12.8% is neutral, maximum 21.8% is somewhat disagree and rest 2.6% strongly disagreed. Maximum participants agreed on EBP takes too much time in which 10.3% strongly agree, 10.3% strongly disagree and 26.9% is somewhat agree, and among the rest of the participants 21.8% is moderately disagreed. Maximum participants disagreed on the statement EBP ignores the art of clinical practice, 28.2% strongly disagreed, 21.8% moderately disagreed and 20.5% somewhat disagreed. Most of the participant agreed on clinical experience is more important than research findings choosing best treatment available for patient, in which 17.9% is strongly agreed, 15.4% is moderately agree and 24.4% is somewhat agree, though 20.5% were neutral. Another statement about if EBP should be an integral part of clinical practice, on which participants response was maximum 55.6% strongly agreed, 20.5% moderately agreed, 12.8% somewhat agreed, 10.3% was neutral. Most of the participants agreed on the Evidence based practice among their colleagues, in which 9.2% strongly agree, 23.1% is moderately agree and 29.5% is somewhat agree and 21.8% is neutral.

Majority agreed that they use Evidence based practice because it improves patient outcome, in which 53.8% is strongly agree, 29.5% is moderately agree and 14.1% is somewhat agree. Almost all of the participants agreed that they use evidence based practice because they believe in it, majority 60.3% strongly agree, 29.5% moderately agree, 6.4% somewhat agree and 3.8% neutral. Statement like “I use EBP because my colleagues do” is rated strongly agree 7.7%, moderately agree 16.7%, somewhat agree 23.1%, neutral 21.8%, somewhat disagree 5.1%, moderately disagree 11.5% and strongly disagree 14.1%. Majority of the participants disagreed on a negative statement “don’t use EBP because they don’t have time” in which 62.8% strongly disagree, 9% both moderately and somewhat disagree, 10.3% moderately agree and 5.1% somewhat agree. Another negative statement is “I don’t use EBP because it’s difficult to change” in which participants rated strongly disagree 55.1%, moderately disagree 19.2%, somewhat disagree 12.8%, neutral 3.8% and the remaining are moderately agree (2.6%) and strongly agree (6.4%).

### 3.2.5 Mean value of the subscales:

In EBP-KAB Questionnaire knowledge (5 questions scored on a 7 point ordinal scale; score range= 0 – 35), attitudes (13 questions, 12 scored on a 7 point ordinal scale; and 1 item on a 5-point ordinal scale; score range= 0 – 89), behavior subscale (5 questions scored on a 5 point ordinal scale; score range= 0 – 25) and outcome/decisions (3 questions scored on a 6 point ordinal scale; score range= 0 –18). In this study, we calculated a percentage score for each of the subscales and the total score, to better understanding and the differences between the scores.

**Table 3.2 Mean score of all subscale**

| Subscales                  | Mean (%)      | Rating           |
|----------------------------|---------------|------------------|
| Knowledge Subscale         | 6.32 (90.29%) | Moderately Agree |
| Behavior Subscale          | 2.69 (53.80%) | Every Month      |
| Decision/ Outcome Subscale | 4.53 (75.5%)  | Moderately       |
| Attitude Subscale          | 5.06 (72.28%) | Somewhat agree   |

This table presents the mean score of each subscale. Among 78 participants total mean score is calculated according to their response.

### 3.2.6 Measure of mean score of knowledge of EBP

The knowledge of Evidence Based Practice which was measured using the 7 point Linkert scale, (1= strongly disagree, 7 =strongly agree) were the anchors and all the question set were positive. Lower scores indicated lower skills and higher scores in turn indicated higher skills. The mean score of 6.32 (90.29%) indicated strongly agree on knowledge of Evidence Based practice among the Speech and Language Therapists. The standard deviation was obtained 0.86 which is lesser than the mean score indicating the significance. The average score of the total was obtained 31.6 out of 35 with the mean percentage of 90.28%.

### 3.2.7 Measure of mean score of EBP behavior

The Behavior of Evidence Based Practice which was measured using the 5 point Linkert scale, (1= every day, 5 = never) were the anchors and all the question set were positive. Lower scores indicated less behavior and higher scores in turn indicated

higher behavior. The mean score of 2.69 (53.80%) which indicated every month to check evidence representing behavior of Evidence Based practice among the Speech and Language Therapists. The standard deviation was obtained 1.08 which is lesser than the mean score indicating the significance. The average score of the total was obtained 13.5 out of 25 with the mean percentage of 54%.

### **3.2.8 Measure of mean score of outcome and decision making using EBP**

The decisions and outcome of Evidence Based Practice which was measured using the 6 point Linkert scale, (1= completely, 6 = not at all) were the anchors and all the question set were positive. Lower scores indicated low outcomes and higher scores in turn indicated higher outcomes. The mean score of 4.53 (75.5%) indicated moderate outcome and decision making in the basis of Evidence Based practice among the Speech and Language Therapists. The standard deviation was obtained 0.931 which is lesser than the mean score indicating the significance. The average score of the total was obtained 13.59 out of 18 with the mean percentage of 75.5%.

### **3.2.9 Measure of mean score of attitude towards EBP**

The attitude towards Evidence Based Practice which was measured using the 7 point Linkert scale, (1= strongly disagree, 7 =strongly agree) were the anchors and the question set 14, 16, 20, 21, 22, 23, 24 were positive and question set 15, 17, 18, 19, 25, 26 were negative, the negative set of question was reversely scored. Lower scores indicated negative attitude and higher scores in turn indicated highly positive attitude. The mean score of 5.06 (72.28%) indicated somewhat agree on knowledge of Evidence Based practice among the Speech and Language Therapists. The standard deviation was obtained 0.86 which is lesser than the mean score indicating the significance. The average score of the total was obtained 65.78 out of 89 with the mean percentage of 73.91%.

The main purpose of the study was to find out level of knowledge attitude and behavior towards Evidence Based Practice among Speech and Language Therapists. The demographics section represented information regarding the respondent Speech and Language Therapists and also the factors that could associate with the level of knowledge and attitude and behavior of Evidence-based practice.

In this study result indicates that major part of Speech and Language Therapists are female (64%) and in large number they are practicing in the professional field. Most of the SLT are young in this profession as their age level is between 25-28 years besides at the same time they have up to 2 to 4 years of clinical experience. Jette et al. (2003) conducted a similar study in which female participants 70.4% were maximum in gender ratio and age range were 30-50 years.

Researcher found that Speech and Language Therapists work in various settings, where majority (56.4%) of them works for non-government organizations (NGO). Some of them works in privet hospitals and some are working in school setting (special needs or inclusive schools). A larger number of the SLT (80.8%) are capital focused (inside and around Dhaka), least number of SLT works in periphery. Result suggest that more than half of the SLTs (61.5%) are focused in treating Paediatric patients, comparatively less number of SLT working with only Adult conditions, though some are working in both area at the same time. Maximum of the SLT works eight to eleven hours at a day and in that time they treat 6-10 patients, some reported more.

Findings revealed that most of the Speech and Language Therapist working in Bangladesh reported that they are familiar with Evidence Based Practice (EBP) terminology and they were positively agreed with about their knowledge regarding EBP. In a study concerning attitudes, beliefs, behavior and knowledge of physical therapists established, they had belief in EBP that it will improve patient care, also they had positive attitudes towards EBP and good knowledge of EBP but enforcement was low (Jette et al., 2003). Investigator found that almost all of the SLTs reported to have confidence in using EBP. They admitted that they have basic knowledge and understanding of evidence base and research utilization. Also maximum 97.4% (76)

thinks that EBP ensure the selection of most effective treatment for a patient. Most of the SLT thinks that it is important to search bibliographic databases to be effective clinician. Participants declared positive response about critical appraisal of research paper. Most of the SLT thinks that evidence and patient preference is equally important for selecting best treatment for the patient. Majority has knowledge of clinical skill and experience of using Evidence Based Practice. In another study according to Villano-Nepoli & Reily, (2004) ninety-four percent of the speech therapists indicated that they know about EBP. They were asked about what EBP meant to their clinical practice, 94% of the speech therapists indicated that they were applying findings from clinically relevant studies, 51% applying clinical skills/experience, 28% were considering and integrating patient views into clinical decisions, and 27% were conducting research. In a study Allied Health Profession (AHP) groups have indicated generally positive perceptions of the principals of EBP (Upton, 1999; Metcalfe et al. 2001). In current study result indicates that mean value for knowledge subscale is 6.32 out of 7 which indicates very positive response. Another study by Arumugam, (2016) indicated that physicians, nurses, PTs, OTs and psychologists have similar patterns of responses, where the mean score fall within 6 points, indicating they had good knowledge of EBP behavior. SLT currently working in Bangladesh have significant knowledge about Evidence Based Practice.

Speech and language Therapist were asked regarding decision making and patient outcome to know how much their decision influenced by evidence. Almost all SLT indicated that Evidence Based Practice significantly affect their clinical decision. Result indicates Evidence Based Practice also affect patient outcome. They are implementing evidence in their practice and found positive outcome in patients. A study conducted by Metcalfe et al. (2001) deduced that almost every participants' express their views that research is important to shape practice. In the current study 26 (33.3%) of Speech and Language Therapist reported frequent change in practice because of new research findings. In a study about one third of the therapist concerned that they wouldn't be able to change in clinical practice although evidence indicated need for change (Metcalfe et al., 2001). Majority reported that they occasionally change their treatment due to any new findings in research about treatment. Half of the Speech and Language Therapist stated that EBP affect their clinical decisions a lot, significantly two third of SLT found a lot of change in patient

outcome for using EBP. McColl et al. (1998) found that most doctors and general practitioners surveyed in UK agreed on practicing and making use of evidence in decision making significantly improve patient care and it helped them in daily management of patients. Jette et al. (2003) also found the similar finding among physiotherapists in their study.

Researcher has investigated evidence based practice behavior like how frequently they access research evidence from various sources like textbook, original research paper or online journal etc. Most of Speech and Language Therapist generally access to research evidence mostly from online journal database, research papers and from textbook. Most of them reported to access in research evidence in weekly or monthly interval. Very few SLTs access in research evidence in daily basis. In a study on doctors McColl et al. (1998) found that only 20% doctors accessed evidence from online where most of them accessed databases from local library. Among the SLTs in this study revealed frequency of access in research evidence in general, only few participants' (6.4%) access every day. Majority of participants access research evidence every week in general, where most 30.8% (24) participants' access research evidence from textbook every month or every week. Significant number of SLT (19.2%) said they usually never access evidence form textbook. According to Strong and Cahill, (2011) 85% of occupational therapist access evidence weekly or more often and the populer source were online and textbook. In the issue of accessing research evidence from original research paper, most of the participant 32.1% (25) said they never access clinical research from original research papers, in contrary some of them access every month, 5 participants said in some case they access only if they need to. Maximum SLT access in research evidence from online database every month or every week. In case of EBP behavior, in another study according to Pennington, (2001) 84.5% of SLT reported that they regularly read information of research and development and 61.7% reported that they read peer reviewed academic journal per two weeks.

Researcher found according to participants self reported response, most of the Speech and Language Therapist shows generally positive attitude towards Evidence Based Practice. Another article based on the attitudes and knowledge of allied health professionals found that they also had good attitudes and knowledge regarding EBP (Heiwe et al., 2011). They were welcoming and accepting towards importance of EBP

and McColl et al. (1998) found that most of the participants were welcoming toward EBP. They appeared to have much confidence in implementing Evidence in practice. Most of SLT thinks Evidence Based Practice should be an integral part of clinical practice and they use EBP because it improves patient outcome. They believe in Evidence Based Practice which is the indication of positive attitude. Some of SLT think their colleagues are also aware of EBP and they have shared attitude towards it. Among the SLT 97.4% (76) claimed themselves as EBP practitioner. Most of SLT thinks EBP is not a cookbook approach rather it's a scientific approach which promote integrating evidence with knowledge. Though some of them preferred previous clinical experience over evidence. Although a small group of participants (16.7%) claimed that they do not practice EBP because they don't have time. Another research suggests that lack of time has been consistently reported as a barrier to EBP by therapists, nurses and medical students (McCluskey2003; Brown et al. 2010). In Attitude subscale mean value for attitude subscale is 4.35 out of 7 which indicates slightly positive response. So, participants has slightly positive attitude toward Evidence Based Practice. In a study by Karki et al. (2015) among nurses regarding the attitude towards Evidence Based Practice the mean score of 3.6 was considered as positive attitudes towards Evidence Based where score was from 1 to 5. In our study the mean score of 4.35 was obtained for value from 1 to 7 which indicated positive attitude in our study as well (Karki et al, 2015). According to the systematic review of Roddam & Skeat, (2010) some of the factors close to negative personal attitude towards EBP might be identified in low-level of confidence in these skills, which encompass awareness of research designs, electronic databases searching, critical appraisal of research papers, instrumentation and measuring clinical change. They suggested that SLTs required to be very skilled in analyze the evidence with confidence, to assure whether it is valid, reliable and relevant to their own clinical circumstances. The same suggestion is equally applicable in the context of our study.

**5.1 Limitation of the study**

There were some limitations and barriers while considering the results of the study in different aspects. Those are as follows:

- Response was lower than desired sample size due to participants' unavailability and time limitation which might not generalize the all population.
- A convenience sampling was used that was not reflective of the wider population under study.
- As it was self reported questionnaire participants often overstate and report the "right" answer instead of actual facts, so their response might be biased.
- Instrumentation was not the best instrument available due to inaccessibility and cost. Outcome or result can be measured in a valid scale in further studies.
- It is only the research ever in this field, so local resources and references were not available for comparison.
- Although some international literature were found in this field on the internet accessing this study was not always possible for comparison with the findings of this study.
- Time and resources were limited that have a great deal of impact of the study.

## **5.2 Recommendation**

This is the first primary study on Evidence Based Practice in Bangladesh. So there were some limitations and barriers during conducting the study. These are-

- The study was done within short period of time and only 78 participants were selected to conduct the whole study. It was a small number of participants to conduct a survey to find out Evidence Based Practice among SLTs and due to less number of the participants, there is a possibility that the external validity of the study decreased. So further study can be conducted with a wide range and large participant size.
- Convenience sampling was used to select participants and study place. So further study can be conducted by simple random sampling.
- The association between socio-demographic characteristics and Knowledge attitude and behavior were not studied separately in this study. So next time it can be shown separately.
- Further research should investigate-
  - ✓ Current rate of research utilization and evidence Based practice.

The total sample was 78 Speech and Language Therapist (86.6% response rate) currently working in Bangladesh. With this study SLTs knowledge attitude and behavior towards evidence based practice was measured. It was found that the SLTs were interested in learning more about Evidence-Based practice and thought it was necessary in practice of Speech and Language therapy. They had moderate knowledge regarding evidence based practice. They had relatively good understanding of the Evidence Based Practice terms as obtained from our study. They had positive attitude towards EBP and they were using it in their clinical practice. Overall SLTs has represented positive outcome and decision making of Evidence Based Practice. The findings revealed from this study have several practical outcomes as well as it will help to improve quality of care.

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## **Annexure 1 (A)**

### **Consent form**

The investigator is Sharif Asadur Rahman 4th year student of B. Sc. in Speech and Language Therapy in Bangladesh Health Profession Institute (BHPI). This study is part of course curriculum. In this study participant has clearly been informed the purpose of the study as to find out “Evidence Based Practice among Speech and Language Therapists in Bangladesh”. In this study I am.....

a participant or sample and I have been clearly informed about the purpose of the study. I am willingly participating in this study. I will have the right to withdraw from this study at any stage and I am not bounded to answer to anyone to get me out of the study at any time. This study will not cause any benefit or impact on participate work at present and future. I have been also inform that, investigator will keep all information confidential and personal identity such as participants name & address will not be published anywhere of the study. The research will be available to answer any study related question to participant.

I have been informed about the above mentioned information and I agree to participate and willingly giving my consent.

|                               |       |
|-------------------------------|-------|
| Signature of the Participant: | Date: |
| Signature of the Researcher:  | Date: |

## Annexure 1 (B)

### Permission from Author

2/2/2019

Gmail - Permission for using modified EBP KABQ



sharif asad <sharifasadsit@gmail.com>

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#### Permission for using modified EBP KABQ

2 messages

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sharif asad <sharifasadsit@gmail.com>  
To: qshi26@uwo.ca

Thu, Jan 31, 2019 at 9:47 AM

Dear Sir,  
I am Sharif Asadur Rahman, final year student of Speech and Language Therapy Department, Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka.  
I am conducting a research for the fulfillment of my academic degree. My research title is - "Knowledge Attitude and Behavior towards Evidence Based Practice among Speech and Language Therapists in Bangladesh." I want to measure knowledge attitude and behavior of Speech and Language Therapists towards EBP in Bangladesh. In order to conduct this study I came to know about modified EBP Knowledge Attitude and Behavior Questionnaire (EBP KABQ) questionnaire tools developed by you. I want to use this tools for data collection.  
I need your permission to use this questionnaire, It will be very helpful for me.  
Thank you

---

qiyun shi <shiqiyun@hotmail.com>  
To: sharif asad <sharifasadsit@gmail.com>

Thu, Jan 31, 2019 at 6:50 PM

Sounds interesting. Sure, you can use my questionnaire.  
Good luck with your research.  
Qiyun Shi

---

**From:** sharif asad <sharifasadsit@gmail.com>  
**Sent:** January 30, 2019 22:47  
**To:** qshi26@uwo.ca  
**Subject:** Permission for using modified EBP KABQ

[Quoted text hidden]

## Annexure 2

### EBP Knowledge Attitude and Behavior Questionnaire (EBP-KABQ)

Please indicate how much you agree/disagree with the following statements.

|                                                                                                    | Strongly Agree | Moderately Agree | Somewhat Agree | Neutral | Somewhat Disagree | Moderately Disagree | Strongly Disagree |
|----------------------------------------------------------------------------------------------------|----------------|------------------|----------------|---------|-------------------|---------------------|-------------------|
| 1. I am confident in my ability to use evidence-based practice.                                    | 7              | 6                | 5              | 4       | 3                 | 2                   | 1                 |
| 2. Using evidence-based practice increases the certainty that the proposed treatment is effective. | 7              | 6                | 5              | 4       | 3                 | 2                   | 1                 |
| 3. It is important for me to search bibliographic databases to be an effective clinician.          | 7              | 6                | 5              | 4       | 3                 | 2                   | 1                 |
| 4. It is important for me to critically appraise research papers to be an effective clinician.     | 7              | 6                | 5              | 4       | 3                 | 2                   | 1                 |
| 5. Evidence and patients are equally important to making clinical decisions.                       | 7              | 6                | 5              | 4       | 3                 | 2                   | 1                 |

|                                                                                              | Every day | Every other day | Every week | Every month | Never | Other (please specify) |
|----------------------------------------------------------------------------------------------|-----------|-----------------|------------|-------------|-------|------------------------|
| 6. How frequently do you access clinical research evidence in general?                       | 5         | 4               | 3          | 2           | 1     | _____                  |
| 7. How frequently do you access clinical research evidence from a textbook?                  | 5         | 4               | 3          | 2           | 1     | _____                  |
| 8. How frequently do you access clinical research evidence from original research papers?    | 5         | 4               | 3          | 2           | 1     | _____                  |
| 9. How frequently do you access clinical research evidence from the online journal database? | 5         | 4               | 3          | 2           | 1     | _____                  |
| 10. How frequently do you access clinical research evidence from secondary sources?          | 5         | 4               | 3          | 2           | 1     | _____                  |

|                                                                                       | Completely | A lot | Modestly | Somewhat | A little | Not at all |
|---------------------------------------------------------------------------------------|------------|-------|----------|----------|----------|------------|
| 11. How much has the use of evidence-based practice affected your clinical decisions? | 6          | 5     | 4        | 3        | 2        | 1          |
| 12. How much has the use of evidence-based practice affected your patient outcomes?   | 6          | 5     | 4        | 3        | 2        | 1          |
| 13. How often does new research evidence result in a change in your practice?         | 6          | 5     | 4        | 3        | 2        | 1          |

14. How much confidence do you have in your clinical decision-making? 5 4 3 2 1 \_\_\_\_\_

The following questions are asking about your personal opinion about EBP. There are no correct answers.

|                                                                                                                                   | Strong<br>ly<br>Agree | Moderat<br>ely<br>Agree | Somewh<br>at Agree | Neutr<br>al | Somew<br>hat<br>Disagre<br>e | Moderat<br>ely<br>Disagre<br>e | Strong<br>ly<br>Disagr<br>ee |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------|--------------------|-------------|------------------------------|--------------------------------|------------------------------|
| 15. Evidence-based practice is “cook-book” rehabilitation that disregards clinical experience.                                    | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 16. It is easy to find the research.                                                                                              | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 17. Evidence-based practice takes too much time.                                                                                  | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 18. Evidence-based practice ignores the “art” of clinical practice                                                                | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 19. Previous clinical experience is more important than research findings in choosing the best treatment available for a patient. | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 20. Evidence-based practice should be an integral part of clinical practice.                                                      | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 21. From my personal observation and experience, evidence-based practice is being used currently by my colleagues.                | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 22. I use evidence-based practice because it improves patient outcomes.                                                           | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 23. I use evidence-based practice because I believe in it.                                                                        | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 24. I use evidence-based practice because my colleagues do.                                                                       | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 25. I don't use evidence-based practice because I don't have time.                                                                | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |
| 26. I don't use evidence-based practice because it is difficult to change.                                                        | 7                     | 6                       | 5                  | 4           | 3                            | 2                              | 1                            |

