Jurnal Keterapian Fisik
Vol. 6, No. 2, November 2021
https://doi.org/10.37341/jkf.v0i0.291

Original Research

Student's Perception On Implementation Of Evidence Based Practice In Clinical Practice

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ABSTRACT

Background: *Evidence Based Practice (EBP) is an important component in clinical practice of a Speech Therapist. Students can develop critical thinking pattern using credible literature. The sustainable implementation of EBP can improve practical quality of Speech Therapist, particularly in clinical decision making. EBP use in speech therapy clinical setting has been unknown in Indonesia. This research aims to identify the implementation of EBP by speech therapy students in clinical setting.*

Methods: *The respondents employed in this study consisted of 35 students. The research was conducted using survey method. Survey was distributed online using Google form application. Sample comprised last-year students of Speech and Language Therapy Applied Bachelor Study Program. The students were those who have undertaken clinical practice in hospital, clinical, or other healthcare service facilities. Analysis was conducted descriptively with correlational analysis technique.*

Results: *Descriptive analysis shows that students' perceptions are varying. Inter-variable cororelation was analyzed using correlation test. The result of analysis shows coefficient of correlation (r) > 0.2, meaning that there is a correlation between case experience, EBP level knowledge, knowledge on EBP, speech therapist's attitude and role, and EBP implementation*

Conclusion: *Survey informs that scientific literacy culture is still weak. This study found the correlation between experience, knowledge, attitude, and EBP implementation. In-depth investigation is required on the different data appearing.*

ARTICLE HISTORY
Received : September 12th, 2021
Accepted : November 22th, 2021

KEYWORDS
evidence based practice, speech therapy, perception, student;

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Cite this as: Pratomo, H. (2021). Student's Perception On Implementation Of Evidence Based Practice In Clinical Practice. *Jurnal Keterapian Fisik*, 96-108. https://doi.org/10.37341/jkf.v0i0.291

INTRODUCTION

Evidence based practice (EBP) is the use of research result in handling case directly (Baker & McLeod, 2011; Hoffman et al., 2013; Thome et al., 2020; Togher et al., 2011). The implementation of research evidence provides higher opportunity of improving service quality. EBP implementation in clinical setting is a clinical requirement in the development of clinical practice quality. EBP ensures the best action

based on the recent finding or output. EBP implementation can be ensured as an obligation in improving clinical skill, knowledge, and decision making (Coyle & Leslie, 2006).

Clinicians applying EBP consistently will make clinical decision scientifically. The procedure of case management, from assessment to reassessment, requires strong knowledge on background of a disorder (Watterson & Grames, 2014). Knowledge update is required to study more in-depth the efficacy of management (Togher et al., 2011).

Although EBP exerts positive effect on the improvement of clinician's skill, EBP implementation face some challenges including strength, weakness, opportunity, and threat (Dodd, 2007). The constraints faced in EBP implementation in the speech therapy service clinical setting have been publicized (see Zipoli & Kennedy, 2005). Survey shows that clinicians have good understanding on EBP definition. Furthermore, clinicians admit that EBP application to clinical setting is not easy. Limited time, source, and knowledge on recent research cause EBP applied difficultly (Thome et al., 2020).

The fact that EBP is not more popular in clinical situation is reflected on some articles (see Lof & Watson, 2008; Thomas & Kaipa, 2015) explaining the gap between empirical base and intervention approach. Meanwhile, the author focused on clinicians in applying EBP (Dodd, 2007; Greenwell & Walsh, 2021; Hoffman et al., 2013) and explained how the analysis of EBP implementation is in clinical setting (Cohen & Hula, 2020). Only very few studies have revealed the EBP implementation behavior in speech therapy students.

The explanation about students' behavior in implementing EBP in clinical practice will provide information on how they use scientific information when facing the client. The change of behavior in EBP implementation starts with the personal clinicians themselves (Togher et al., 2011). Another study showed that EBP use tends to be based on opinion and experience (Pratomo & Siswanto, 2020). Based on EBP level, experience and opinion have lowest EBP level (Zipoli & Kennedy, 2005).

To get a description on how EBP is used in clinical practice, the author conducts a survey to explore how the students select and use scientific information source. This article shows how students use and implement EBP and the factor affecting its implementation. This study is intended to see the correlation between experience, knowledge, attitude, and implementation of EBP in clinical setting.

MATERIALS AND METHOD

To investigate how EBP is used in students' clinical activity, survey was distributed to students. Survey was conducted online through Google form application. Each of students completed the survey consisting of five sections. First section contains questions reviewing information on students' demography, second section explores the students' conviction in EBP knowledge, third section contains questions exploring students' attitude to EBP, and fourth section contains questions exploring the constraints the students face related to EBP implementation, and the last section contains questions exploring the frequency of literature use during EBP implementation.

Sample comprised the 8^{th}-semester students who were undertaking clinical practice. Research was conducted on May-June 2020. The sample size was 35 respondents. The research permit was issued by Speech Therapy Department of

Poltekkes Kemenkes Surakarta with letter Number LB. 02.02/ 13.2/ 408/ 2020. Informed consent was approved online by individual respondents.

Analysis was conducted using descriptive analysis to give description on demographic, knowledge, attitude, constraint, and EBP use frequency variables. Inter-variable correlation was analyzed using correlational analysis.

RESULTS

The following is a table of sex and research topic concentration:

Table 1. Sex and research topic concentration

Sex			
Male		**Female**	
N	**%**	**n**	**%**
1	2.9	34	97.1
Research Topic Concentration			
		n	**%**
Written Language Disorder		6	17.1
Verbal Language Disorder		19	54.3
Speech Sound Disorder		1	2.9
Voice Disorder		7	20
Aural Habilitation		2	5.7

Table 1 shows that respondents were dominated by students (97.1%). Research topic chosen is mostly related to verbal language disorder. The research topic least preferred is speech sound disorder.

Table 2. Case Concentration and Clinical Experience

	Case Concentration			
Concentration	**2 Less Preferring n (%)**	**3 Neutral n (%)**	**4 Preferring n (%)**	**5 Preferring verily n (%)**
Verbal Language Disorder		5 (14.3)	16 (45.7)	14 (40)
Written Language Disorder	3 (8.6)	11 (31.4)	17 (48.6)	4 (11.4)
Adult Cognitive and Language Disorder		6 (17.1)	18 (51.4)	11 (31.4)
Speech Production disorder		12 (34.3)	17 (48.6)	6 (17.1)
Voice Disorder	5 (14.3)	14 (40)	9 (25.7)	7 (20)
Smoothness and Rhythm Disorder	3 (8.6)	19 (54.3)	11 (31.4)	2 (5.7)
Resonance Disorder	2 (5.7)	23 (65.7)	9 (25.7)	1 (2.9)
Eating and swallowing disorder	6 (17.1)	9 (25.7)	15 (42.9)	5 (14.3)
Speech Motor Disorder	1 (2.9)	4 (11.4)	24 (68.6)	6 (17.1)
Auditory Habilitation		12 (34.3)	18 (51.4)	5 (14.3)

Clinical Case Experience					
	1 Never n (%)	**2 Rarely n (%)**	**3 Occasionally n (%)**	**4 Frequently n (%)**	**5 Always n (%)**
Developmental Language Disorder	1 (2.9)	1 (2.9)	2 (5.7)	21 (60)	10 (28.6)
Speech Sound Disorders		2 (5.7)	6 (17.1)	22 (62.9)	5 (14.3)
Intellectual Disability			7 (20)	17 (48.6)	11 (31.4)
Fluency Disorder	10 (28.6)	9 (25.7)	13 (37.1)	3 (8.6)	
Autism Spectrum Disorder			6 (17.1)	19 (54.3)	10 (28.6)
Attention Deficit/ Hyperactive Disorder	1 (2.9)	3 (8.6)	6 (17.1)	17 (48.6)	8 (22.9)
Dyslexia	12 (34.3)	8 (22.9)	10 (28.6)	5 (14.3)	
Specific Learning Disorder	11 (31.4)	6 (17.1)	12 (34.3)	6 (17.1)	
Language Learning Disability	7 (20)	9 (25.7)	13 (37.1)	6 (17.1)	
Down Syndrome			2 (5.7)	18 (51.4)	15 (42.9)
Cleft Lip Palate	1 (2.9)	6 (17.1)	16 (45.7)	9 (25.7)	3 (8.6)
Cerebral Palsy			6 (17.1)	18 (51.4)	11 (31.4)
Hearing Impairment		1 (2.9)	7 (20)	19 (54.3)	8 (22.9)
Aphasia		2 (5.7)	3 (8.6)	15 (42.9)	15 (42.9)
Dysarthria		1 (2.9)	6 (17.1)	19 (54.3)	9 (25.7)
Apraxia of Speech	10 (28.6)	8 (22.9)	12 (34.3)	4 (11.4)	1 (2.9)
Voice Disorder	4 (11.4)	6 (17.1)	16 (45.7)	7 (20)	2 (5.7)
Dysphagia		5 (14.3)	13 (37.1)	8 (22.9)	9 (25.7)
Traumatic Brain Injury	11 (31.4)	8 (22.9)	11 (31.4)	4 (11.4)	1 (2.9)

Table 2 shows that case concentration and clinical experience have variable figure. It is noteworthy that several students reported having never handled a case. Some cases reportedly having never been handled are, among others, developmental language disorder, smoothness rhythm disorder, ADHD/ADD, dyslexia, specific learning disorder, language-learning disability, *Cleft Lip Palate, Apraxia of Speech, Voice Disorder,* and *Traumatic Brain Injury.*

Students' knowledge on *evidence based practice* is classified into two: knowledge on evidence based practice concept and knowledge on evidence based practice level. The table below shows conviction in respondents' knowledge.

Table 3. Students' knowledge on *evidence based practice*

Knowledge on *Evidence Based Practice* Concept					
	1 Very unconvinced n (%)	**2 Unconvinced n (%)**	**3 Hesitant n (%)**	**4 Convinced n (%)**	**5 Very Convinced n (%)**
EBP is the implementation of study result into speech therapy service		1 (2.9)	5 (14.3)	17 (48.6)	12 (34.3)
Randomized Control Trial is an experimental research	1 (2.9)	2 (5.7)	18 (51.4)	10 (28.6)	4 (11.4)
Each EBP provides service protocol		1 (2.9)	7 (20)	23 (65.7)	4 (11.4)
Knowledge on *Evidence Based Practice* Level					
Seminar or training is the highest level of EBP	2 (5.7)	6 (17.1)	9 (25.7)	12 (34.3)	6 (17.1)
EBP consists of six level	11 (31.4)	6 (17.1)	9 (25.7)	7 (20)	2 (5.7)
Case study is the 3rd level of EBP	3 (8.6)	3 (8.6)	8 (22.9)	14 (40)	7 (20)

Some respondents believe that *evidence based practice* is the application of study result to clinical setting. Respondent's hesitation arises concerning the comprehension of *Randomized Control Trial*. Some others believe that each of *evidence based practices* will provide interventional protocol. Seminar is a source of *evidence based practice* believed to affects most significantly the clinical practice. Still some others are unconvinced in the level of *evidence based practice*. The conviction of most respondents lies on that concerning case study.

Respondents' attitude to the application of *evidence based practice* includes the attitude to the benefit of *evidence based practice* implementation and that to the role of Speech Therapist in the development of *evidence based practice*. Table below shows respondents' attitude to the implementation of *evidence based practice*.

Table 4. Attitude to the implementation of *evidence based practice*

Attitude to the Benefit of *Evidence Based Practice*					
	1 Strongly Disagree n (%)	**2 Disagree n (%)**	**3 Neutral n (%)**	**4 Agree n (%)**	**5 Strongly Agree n (%)**
EBP is basic precondition of service development			5 (14.3)	18 (51.4)	12 (34.3)
EBP improves the clinical decision making ability			3 (8.6)	17 (48.6)	15 (42.9)
EBP can improve interviewing skill		1 (2.9)	5 (14.3)	20 (57.1)	9 (25.7)
EBP can improve observing ability			5 (14.3)	20 (57.1)	10 (28.6)
EBP helps the process of selecting research instrument			3 (8.6)	21 (60)	11 (31.4)
EBP helps the process of setting up the objective of therapy			5 (14.3)	19 (54.3)	11 (31.4)
EBP helps select an appropriate intervention			5 (14.3)	19 (54.3)	11 (31.4)
Attitude to the Role of Speech Therapist in *Evidence Based Practice*					
Speech therapist plays important role in EBP development			5 (14.3)	19 (54.3)	11 (31.4)
Author serves as the only EBP developer	2 (5.7)	7 (20)	17 (48.6)	8 (22.9)	1 (2.9)
Scientific participation is an attempt of developing EBP			13 (37.1)	16 (45.7)	6 (17.1)
Reading the result of research is an obligation			15 (42.9)	17 (48.6)	8 (22.9)
Implementing EBP in clinical setting is an obligation			15 (42.9)	16 (45.7)	4 (11.4)
Participating in the research is EBP development			6 (17.1)	21 (60)	8 (22.9)

Most respondents agree that *evidence based practice* helps improve the quality of speech therapist' action. Majority respondents agree that speech therapists play central role in the attempt of applying *evidence based practice* in clinical setting.

Students' perception on the constraint in EBP implementation in clinical setting is expressed through completing questionnaire. The questionnaire contains 10 lists of question with five answer choices: strongly disagree, disagree, neutral, agree, and strongly agree. The detail of students' perception on the constraints in EBP implementation is explained in the table below.

Table 5. Constraints of *evidence based practice*

	1 Strongly disagree n (%)	2 Disagree n (%)	3 Neutral n (%)	4 Agree n (%)	5 Strongly agree n (%)
Difficult access to journal or publication	1 (2.9)	3 (8.6)	18 (51.4)	8 (22.8)	5 (14.3)
Uneven development of EBP in all work areas	1 (2.9)	2 (5.7)	11 (31.4)	16 (45.7)	5 (14.3)
Inadequate number of high-quality research		4 (11.4)	21 (60)	7 (20)	3 (8.6)
Difficult access to the availability of work area concentration book		2 (5.7)	14 (40)	9 (25.7)	10 (28.6)
Service referral system not providing good access			4 (11.4)	17 (48.6)	14 (40)
No literature providing EBP adequately		3 (8.6)	24 (68.6)	7 (20)	1 (2.9)
Not all studies explain accurate management		1 (2.9)	15 (42.9)	15 (42.9)	4 (11.4)
EBP does not affect all types of disorder equally	1 (2.9)	3 (8.6)	16 (45.7)	11 (31.4)	4 (11.4)
Service system does not enable EBP implementation comprehensively		4 (11.4)	16 (45.7)	10 (28.6)	5 (14.3)
Health system does not require EBP implementation compulsorily		2 (5.7)	11 (31.4)	17 (48.6)	5 (14.3)

Access availability issue is one of issues uttered by respondents constraining the implementation of EBP. Service management including speech therapist service is one of variables believed by the respondents contributing to EBP implementation.

EBP implementation in clinical setting is represented using literature as the reference in students' clinical action. Students report the literatures used through questionnaire distributed. The answer of questionnaire comprises five choices: never, rarely, occasionally, frequently, and always. The result of survey on literatures used by students is presented in the table below.

Table 6. Literature used by students

	1 Never n (%)	2 Rarely n (%)	3 Occasionally n (%)	4 Frequently n (%)	5 Always n (%)
E.1 Personal Experience		2 (5.7)	14 (40)	17 (48.6)	2 (5.7)
E.2 Colleague (Peer) Recommendation Saran		2 (5.7)	18 (51.4)	14 (40)	1 (2.9)
E.3 Expert (Consultant)		1 (2.9)	3 (8.6)	25 (71.3)	6 (17.1)

	1 Never n (%)	2 Rarely n (%)	3 Occasionally n (%)	4 Frequently n (%)	5 Always n (%)
recommendation					
E.4 Tutorial Video (internet)	1 (2.9)	8 (22.8)	10 (28.6)	15 (42.9)	1 (2.9)
E.5 Case recording video	2 (5.7)	8 (22.8)	11 (31.4)	13 (37.1)	1 (2.9)
E.6 Textbook		1 (2.9)	11 (31.4)	17 (48.6)	6 (17.1)
E.7 Intervention Protocol		1 (2.9)	10 (28.6)	17 (48.6)	7 (20)
E.8 Seminar and or training			9 (25.7)	20 (57.1)	6 (17.1)
E.9 Popular Article		6 (17.1)	12 (34.3)	14 (40)	3 (8.6)
E.10 Result of Research		5 (14.3)	9 (25.7)	19 (54.3)	2 (5.7)
E.10.a Expert Review	1 (2.9)	4 (11.4)	9 (25.7)	19 (54.3)	2 (5.7)
E.10.b Correlational Study		5 (14.3)	16 (45.7)	13 (37.1)	1 (2.9)
E.10.c Case study		2 (5.7)	14 (40)	16 (45.7)	3 (8.6)
E.10.d Quasi-experimental study	2 (5.7)	10 (28.6)	13 (37.1)	9 (25.7)	1 (2.9)
E.10.e Non-randomized control experimental study		6 (17.1)	6 (17.1)	18 (51.4)	5 (14.3)
E.10.f Randomized control experimental study		5 (14.3)	8 (22.8)	18 (51.4)	4 (11.4)
E.10.g *Systematic review*	4 (11.4)	4 (11.4)	18 (51.4)	8 (22.8)	1 (2.9)

Table 6 represents that some types of literature have not been used yet. A (1) student has never used tutorial video, two (2) have never used case recording video, a (1) has never used expert review, two (2) have never used literature on quasi-experimental study, and four (4) have never used or reading journal on systematic review.

The research conducted reveals that the variation of clinical experience between students enables the gap in practicing clinical skill. Some students report always finding a case in each of practical fields. Otherwise, some others report never finding an experience with handling a case. Table below presents the comparison between case never handled by students and the one always handled by students.

Table 7. Students' Clinical Experience

Case never handled by students		Case always handled by students	
Case	**Number of Students**	**Case**	**Number of Students**
Developmental Language	1 (2.9)	*Developmental*	10 (28.6)

Case never handled by students		Case always handled by students	
Case	**Number of Students**	**Case**	**Number of Students**
Disorder		*Language Disorder*	
Fluency Disorder	10 (28.6)	*Speech Sound Disorders*	5 (14.3)
Attention Deficit/ Hyperactive Disorder	1 (2.9)	*Intellectual Disability*	11 (31.4)
Dyslexia	12 (34.3)	*Autism Spectrum Disorder*	10 (28.6)
Specific Learning Disorder	11 (31.4)	*Attention Deficit/ Hyperactive Disorder*	8 (22.9)
Language Learning Disability	7 (20)	*Down Syndrome*	15 (42.9)
Cleft Lip Palate	1 (2.9)	*Cleft Lip Palate*	3 (8.6)
Apraxia of Speech	10 (28.6)	*Cerebral Palsy*	11 (31.4)
Voice Disorder	4 (11.4)	*Hearing Impairment*	8 (22.9)
Traumatic Brain Injury	11 (31.4)	*Aphasia*	15 (42.9)
		Dysartrhria	9 (25.7)
		Apraxia of Speech	1 (2.9)
		Voice Disorder	2 (5.7)
		Dysphagia	9 (25.7)
		Traumatic Brain Injury	1 (2.9)

Table 7 shows that varying practical fields give the students an opportunity of accessing the types of cases differently. The even distribution of cases will enable the students to apply entire skill to all types of communication disorders. The table indicates that the cases never handled by students in descending order from the highest percentage are *Dyslexia, Traumatic Brain Injury, Specific Learning Disorder, Fluency Disorder,* and *Apraxia of Speech.* Otherwise, the five types of cases always handled by students are *Aphasia, Down Syndrome, Intellectual Disability, Cerebral Palsy, Developmental Language Disorder,* and *Autism Spectrum Disorder.* This finding is useable to review the availability of client in practical field, and thereby facilitates the decision maker to determine clinical practice method for students.

Correlational analysis is conducted to see the correlation between variables. Each of variables is analyzed using correlational analysis to find out what variables do have correlation. Table 8 explains inter-variable correlation. The result of correlational analysis shows that some variables have correlation with literature sources used as reference in clinical practices, including among others: case experience, knowledge on EBP level, knowledge on EBP, and speech therapist' attitude in EBP implementation.

Table 8. Result of correlational analysis

Variable		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Case Concentration										
Case	r	0.20								
Experience	p	0.24								
Knowledge on	r	**0.36***	0.06							
EBP concept	p	**0.03**	0.70							

Variable		1	2	3	4	5	6	7	8	9
Knowledge on	r	0.09	**0.41****	0.08						
EBP level	p	0.58	**0.01**	0.64						
Knowledge on	r	0.28	**0.35***	**0.63*****	**0.81**[#]					
EBP	p	0.09	**0.03**	**≤0.01**	**≤0.01**					
Attitude to	r	0.22	0.16	0.40*	0.11	0.14				
benefit	p	0.19	0.35	0.01	0.51	0.41				
Attitude and	r	**0.35***	0.24	**0.47****	0.22	**0.44****	**0.52****			
role of Speech Therapist	p	**0.03**	0.14	**≤0.01**	0.20	**≤0.01***	**≤0.01***			
Attitude to	r	0.31	0.22	**0.48****	0.01	0.29	**0.91**[#]	**0.80**[#]		
EBP implementation	p	0.06	0.20	**≤0.01**	0.93	0.08	**≤0.01**	**≤0.01**		
Attitude to	r	0.08	0.22	0.07	0.13	0.06	0.31	0.10	0.26	
constraints	p	0.63	0.19	0.68	0.45	0.72	0.06	0.55	0.12	
Literature	r	0.28	**0.49****	0.29	**0.35***	**0.44***	0.06	**0.41****	0.22	0.16
source	p	0.09	**≤0.01**	0.08	**0.03**	**≤0.01**	0.72	**0.01**	0.19	0.35

Note: (*) has weak correlation, (**) has moderate correlation, (***) has strong correlation, ([#]) has very strong correlation.

Analysis is conducted using correlational test with indicator of p value and coefficient of correlation. Table 8 shows that inter-variable correlation in EBP implementation is multivariable in nature. The table also indicates that some variables having correlation with literature source used as the reference in clinical practice are, among others: case experience, knowledge on EBP level, knowledge on EBP, and speech therapist' attitude and role in EBP implementation.

DISCUSSION

The objective of current research is to investigate the correlation between experience, knowledge, and attitude, and the implementation of EBP when the students undertake clinical practice in hospital, clinic, and other healthcare service facilities. The result of research shows that the correlation between experience, knowledge, and attitude, and the implementation of EBP when students undertake clinical practice. This finding confirms that of a previous study on strength, weakness, opportunity, and threat (SWOT) analysis related to the implementation of EBP in clinical setting (Dodd, 2007).

The implementation of *Evidence Based Practice* in speech therapy practice is urgent. Clinical decision made by a speech therapist should (a) identifies client's needs in order to have appropriate EBP, (2) acquire and maintain knowledge and skill, (3) evaluate the examining ability, (4) evaluate the efficacy of each intervention protocol existing, (5) evaluate the quality of EBP source existing, and (6) monitor the researches or studies affecting clinical action (ASHA, 2005). Process of implementing EBP in clinical setting begins when students enter into clinical practice world. Clinical practice is students' field practice to apply basic theories they have obtained and to practice it in real clinical action to individual with communicating and swallowing disorder (Hegde & Davis, 2010).

Experience with EBP underlies EBP implementation in clinical setting. The result of analysis shows that there is a correlation between knowledge and EBP implementation by the students during their clinical practice. The comprehension on its

benefit will motivate the implementation of EBP to improve the quality of practice. Furthermore, knowledge influences the selection of literature sources used as the reference of practice. Some studies found that knowledge on EBP is an important component in EBP implementation (Kim et al., 2013; Motamedi et al., 2021).

The use of varying literatures enables students to use a variety of evidence levels as the basis of clinical decision making. Some studies conducted revealed that expert opinion has high percentage (proportion). Majority students often and always use consultant's and lecturer's recommendation as the basis of clinical decision making. It is interesting because good modeling will provide good output of consultation process, and vice versa. It should be underlined that listening to expert opinion only is not the highest evidence in clinical decision making (Kent, 2006). Strong literature guiding is required in order to make adequate comparison.

EBP level indicates that experimental research and approach has higher level than expert opinion (Hoffman et al., 2013). An intervention protocol is required to be used as students' reference in doing examination or intervention. Nevertheless, reinforcement and bridging are required in integrating the result of research into clinical setting. When the integration of experimental based research is difficult to do, the consultant can use clinical data of a case study to bridge the theory and its application (Patterson & Avent, 2006).

Correlational analysis shows that case experience, knowledge on EBP, knowledge on EBP, and speech therapy's attitude and role in EBP implementation have a correlation. Case experience will lead students to find the necessary literature. Indeed not all evidence sources provide intervention protocol, so that variation is needed in searching for literature. Knowledge on EBP impacts the process of selecting strong evidence source. Good knowledge on EBP level will affect the process of receiving scientific information obtained. The more selective the EBP determining process, the better will be the clinical output achieved (Patterson & Avent, 2006).

Overall, it can be seen that students have not performed the EBP implementation behavior strongly in clinical setting. Information type, literature variation, and students' perception indicate still low literature culture. Scientific culture is very important to improve service quality (Simons, 2004). Compared with recent studies, EBP implementation in students also shows result not much different from what the clinicians have done. Clinicians report that they have positive perception on EBP implementation. Viewed from implementation aspect, clinicians report that EBP implementation faces some constraints (Greenwell & Walsh, 2021).

CONCLUSION

This research finds some facts, among others, about case experience, students' concentration, knowledge representation, attitude, and EBP implementation, and correlation between research variables. Not all students have ever found all cases mentioned in the survey. The cases are, among others, *Dyslexia, Traumatic Brain Injury, Specific Learning Disorder, Fluency Disorder,* and *Apraxia of Speech*. Most students concentrate on language field in their research. Correlation obtained through bivariate analysis involves case experience, knowledge on EBP level, knowledge on EBP, and speech therapist's attitude and role and EBP implementation.

Study on how to see EBP implementation in curriculum structure is required to see in-depth recommendation on the development of EBP implementation culture. The learning integrating theoretical basic concept, case study and result of recent studies is

required as an attempt of growing scientific literacy culture. School should encourage EBP implementation in clinical setting.

ACKNOWLEDGEMENT

Thanks to all 8th-semester students of Speech Therapy Applied Bachelor Study Program in academic year of 2019/2020 for helping this research completion.

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