



UNIVERSITI PUTRA MALAYSIA

***PREDICTORS OF PARENTAL ENGAGEMENT
IN HOME-BASED SPEECH THERAPY PROGRAM
FOR SPEECH AND LANGUAGE DISORDERED CHILDREN
IN THE KLANG VALLEY, MALAYSIA***

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FEM 2021 23



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By

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**Thesis Submitted to the School of Graduate Studies,
Universiti Putra Malaysia, in Fulfilment of the Requirements for the
Degree of Master of Science**

April 2021

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the degree of Master of Science

**PREDICTORS OF PARENTAL ENGAGEMENT IN HOME-BASED SPEECH
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April 2021

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Focusing on and improving parental engagement is perceived to increase the success of Speech Therapy outcome among speech-language disordered children. Despite the importance of improving parental engagement, there is a scarcity of empirical evidence examining factors related to engagement. Therefore, the current study was conducted to investigate if motivation, communication, competence, expectation and barrier are predicting parental engagement.

The study adopted a cross-sectional design to address the research inquiries and to draw conclusions from the analyses. A sample of 384 respondent were selected from 7 government hospitals in Klang Valley using systematic random sampling. Six instruments were administered in this study namely Parent Motivation Inventory, Parental Expectation Scale, Therapist-Parent Communication Questionnaire, Perceived Competence Scale, Barrier to Treatment Participation Scale (Treatment Demands and Issue) and Parent Home-programme Compliance Questionnaire. Descriptive, bivariate and multivariate statistics using SPSS and Smart-PLS software were used in data analysis.

This study found that 54% of the respondents reported to have low parental engagement. Findings from the independent sample t-test test indicated that there were significant difference in parental engagement between one child and more than one child in the family. The independent sample t-test test also revealed that there were significant difference in parental engagement between child with medical condition and child with no medical condition.

The study's results obtained from the Partial Least Square Structural Equation Modeling (PLS-SEM) showed there were significant positive relationship for motivation (0.568), expectation (0.485), communication (0.470), competence (0.577) with parental engagement. While significant negative relationship were revealed between barrier (-0.510) and parental engagement. Competence was the strongest predictor followed by barrier, motivation and communication with R^2 value of 0.559.

Additionally, barrier partially mediated the relationship between motivation and parental engagement, while competence partially mediated the relationship between communication and parental engagement. This indicate that motivation and communication not only directly affect parental engagement but indirectly through barrier and competence. Interestingly, competence fully mediated the relationship between expectation and parental engagement, which means, expectation does not directly affect parental engagement but indirectly through competence.

It can be concluded that this study has critically important clinical and policy implications for efforts to improve the quality and effectiveness of care. To improve parental engagement in home-based Speech Therapy program for speech and language disordered children, parent need to be competence and strongly believe in their own capabilities. Policy maker and clinicians should offer opportunities to modify parents barrier to treatment, as well as keep motivating parents throughout intervention. Lastly, both parents and clinician need to make an effort to have good relationship and improve communication.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Master Sains

**PERAMAL PENGLIBATAN IBU BAPA DALAM KERJA RUMAH PROGRAM
TERAPI PERTUTURAN UNTUK KANAK-KANAK DENGAN MASALAH
PERTUTURAN DAN BAHASA DI LEMBAH KLANG, MALAYSIA**

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Menekankan dan menggalakkan penglibatan ibu bapa dalam terapi dapat meningkatkan kejayaan Terapi Pertuturan dalam kalangan kanak-kanak Bermasalah Bahasa-Pertuturan. Walau bagaimanapun, terdapat kekurangan bukti empirikal yang mengkaji faktor-faktor yang berkaitan dengan penglibatan tersebut. Oleh itu, kajian ini dilakukan untuk mengkaji jika motivasi, komunikasi, jangkaan, kompetensi dan halangan adalah peramal penglibatan ibu bapa.

Kajian ini menggunakan reka bentuk keratan rentas. Seramai 384 responden dipilih dari 7 hospital kerajaan di Lembah Klang menggunakan persampelan rawak sistematik. Enam instrumen telah digunakan dalam kajian ini iaitu *Parent Motivation Inventory*, *Parental Expectation Scale*, *Therapist-Parent Communication Questionnaire*, *Perceived Competence Scale*, *Barrier to Treatment Participation Scale* dan *Parent Home-programme Compliance Questionnaire*. Analisis data melibatkan statistik deskriptif, bivariat dan multivariat menggunakan perisian SPSS dan Smart-PLS.

Hasil kajian yang diperoleh daripada *Partial Least Square Structural Equation Modeling* (PLS-SEM) menunjukkan terdapat hubungan positif yang signifikan antara motivasi (0.568), jangkaan (0.485), komunikasi (0.470) dan kompetensi (0.577). Sementara itu, terdapat hubungan negatif yang signifikan antara halangan (-0.510) dan penglibatan ibu bapa. Namun hanya motivasi, komunikasi, kecekapan dan halangan yang menjadi peramal kepada penglibatan ibu bapa. Kompetensi adalah peramal yang tertinggi diikuti oleh halangan, motivasi dan komunikasi dengan nilai R^2 sebanyak 0.559.

Selain itu, halangan merupakan pengantara sebahagian antara hubungan motivasi dan penglibatan ibu bapa, sementara kompetensi adalah pengantara sebahagian antara hubungan komunikasi dan penglibatan ibu bapa. Ini menunjukkan bahawa motivasi dan komunikasi bukan sahaja secara langsung mempengaruhi penglibatan ibu bapa tetapi secara tidak langsung melalui halangan dan kompetensi. Apa yang menarik ialah, kompetensi menjadi pengantara penuh hubungan antara jangkaan dan penglibatan ibu bapa, ini bermaksud, jangkaan secara langsung tidak mempengaruhi penglibatan ibu bapa tetapi secara tidak langsung melalui kompetensi.

Dapat disimpulkan bahawa kajian ini mempunyai implikasi klinikal dan polisi yang sangat penting dalam usaha untuk meningkatkan kualiti dan keberkesanan terapi. Bagi meningkatkan penglibatan ibu bapa dalam program kerja rumah Terapi Pertuturan untuk kanak-kanak bermasalah pertuturan dan bahasa, ibu bapa perlu kompeten dan yakin pada kemampuan mereka sendiri. Pembuat dasar dan ahli terapi perlu mengetahui halangan yang dihadapi serta mahir untuk terus memberi motivasi kepada ibu bapa sepanjang sesi terapi. Akhir sekali, ibu bapa dan ahli terapi perlu berusaha untuk menjalin hubungan dan komunikasi yang lebih baik.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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- the research conducted and the writing of this thesis was under our supervision;
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LIST OF ABBREVIATIONS

UPM	Universiti Putra Malaysia
SLD	Speech and Language Disordered
SLT	Speech-Language Therapist
HBP	Home-based Program
MOH	Ministry of Health
HIC	Health Informatics Centre
MREC	Medical Research Ethics Committee
CRC	Clinical Research Centre
PTAPE	Phoenix Theory of Attendance, Participation and Engagement
ECM	Engagement Capacity Model
PMI	Parent Motivation Inventory
PCS	Parent Competence Scale

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter introduces the background of the present study regarding parental engagement in Home-based Speech Therapy program for children with Speech and Language Disorder. Then, followed on by revealing the issues regarding the research where the statement of problem is presented. The chapter continues by stating the general and specific objectives as well as the hypotheses of the study. The terminology definition of each variable is discussed, followed by the significance of the study. This chapter ends with the chapter summary.

1.2 Background of the Study

The impact of Speech and Language Disorder (SLD) can be mitigated if people with SLD were identified, treated and appropriately supported. SLD individuals may face challenges with their mental health and wellbeing (Botting et al., 2016; Conti-Ramsden et al., 2016; Lyons & Roulstone, 2018), relationships (Mok et al., 2014) and personal development (Durkin et al., 2017). Furthermore, there were evidence that links between SLD and poor education and employment (Conti-Ramsden et al., 2018; McLeod et al., 2018) which further may impact the SLD individual, families and society economically and financially, and puts them at risk of victimisation (Cronin, 2017; Winstanley et al., 2018). Overall, persisting SLD may lead to a low quality of life (Eadie et al., 2018; Pedersen et al., 2020; Van den Bedem et al., 2018).

SLD is one of the most common developmental delays in early childhood (Hall & Elliman, 2006). Previously, it was reported that 2.3% to 24.6% of school-aged children had speech sound disorders or speech delay (Black, Vahratian, & Hoffman, 2015; Wren, Laura L. Miller, Peters, Emond, & Roulstone, 2016). Individuals with language disorders also have been reported as high prevalence rates around 23% to 33% (Ketelaars et al., 2009).

American Speech-Language-Hearing Association (1993) or ASHA, defined Speech Disorder as “an impairment of the articulation of speech sounds, fluency, or voice”. Meanwhile, Language Disorder was described as “impaired comprehension or use of spoken, written, or other symbol systems”. The involvement of families, especially parents, are the principles of professional speech-language pathology associations (American Speech-Language-Hearing Association, 2008) and is considered as best practise in the field of children’s early intervention (Division for Early Childhood, 2014). One most well-known

strategy adopted by Speech-Language Therapist (SLT) in early intervention for SLD children is to increase the children's amount of practice by involving and engaging parents in intervention and practising speech and language activities with their children at home (Sugden, Munro, et al., 2019). Moreover, parents play a critical role in supporting children's speech and language development, since parents are the first and primary trainer of children (Bronfenbrenner, 1974; Melvin, Meyer, & Scarinci, 2019; Tekin, 2014). Parents who are involved in intervention possibly will be able to maintain and generalise the target development in daily communicative context (Bowen & Cupples, 2004; Skeat & Roddam, 2019). The degree to which children are involved in therapy mostly depends on parental involvement and engagement with the intervention (D'Arrigo et al., 2018; Hansen & Brouwer, 2016). Therefore the success of therapy in children, that often includes a continuation of the activities at home or home-based program (HBP) relies on parents effort to participate, learn, practice and engage in intervention strategies (Roberts & Kaiser, 2011).

This current study emphasised on parental engagement of mother or father with SLD child age below 18 years old because it has been recognised as valuable aspect in the effectiveness of child's intervention (Gopalan et al., 2010; Haine-Schlagel & Walsh, 2015; Melvin et al., 2020). Engagement was defined by Prinz and Miller (1991) as the "participation necessary to obtain optimal benefits from an intervention", which includes attendance, cooperation and involvement within sessions, and outside of sessions. Engagement was defined similarly by Cunningham and Henggeler (1999) as "session attendance, homework completion, emotional involvement in sessions, and progress toward goals". However, in this study, focus was given on parental engagement for HBP.

Parental engagement is a complex, multifaceted nature in early Speech Therapy intervention. There is no single path that may lead to engagement or disengagement. Instead, a combination of factors may affect parental engagement in an intervention (Melvin, Meyer, & Scarinci, 2019). Parental engagement is also frequently associated with parents' related factors such as parents' motivation, expectation and their knowledge and competence may affect parents' engagement in the therapy (King et al., 2019; Phoenix et al., 2018; Sugden et al., 2018). Studies have shown that low participation and engagement was noted in parents who are not motivated to attend interventions. Hence, motivation is expected to be one of the elements that affect engagement. Furthermore, there was evidence that in order to facilitate participation and engagement, few programs had applied motivational augmentation (Chaffin et al., 2009; Damashek et al., 2012; Praphatthanakunwong et al., 2018).

In addition, parent expectations in child's treatment need to be cleared and enlighten, particularly during the initial session in intervention to increase the consistency between what is expected of the service and what is experienced in reality, as the consistency may increase parental engagement (Davies et al., 2017; Glogowska & Campbell, 2000; Phoenix et al., 2018). Nevertheless, differences in the expectations of parents and the service provided by SLTs were

typically noted, which may negatively impact parents' engagement (Klatte et al., 2019).

Consequently, good communication with practitioners in clarifying expectation for parents in early intervention process are seen as crucial towards achieving ongoing engagement, aside from that, effective communication can also enhance parent knowledge and competence, which in turn increases parent's confidence to practice with their children at home (Oono et al., 2018; Pickard et al., 2016). These parents' sense of competence may lead to parents' empowerment through increased parental engagement (Stahmer et al., 2016).

Likewise, factors, including the therapists and techniques use in intervention may play a significant role in parent engagement. Parent perceptions of their therapists' interpersonal skills such as caring, interest and empathy, as well as collaboration with parents about the intervention were all positively associated with parent participation and engagement. It is also believed that when practitioners facilitate the setting to achievable goals and assist parents in experiencing success and creating support for competence, it will work towards optimal parental engagement (D'Arrigo et al., 2017; King et al., 2014).

Finally, perceived barriers to treatment were frequently mentioned in the literature. These barrier or challenges may hinder participation and engagement in treatment. For instance, barrier such as the overwhelming therapy demands, that insisted the continuation of intervention strategies at home were found to be difficult and challenging as reported by several parents (Sugden, Baker, et al., 2019) and not every parent were prepared to support and help their children (Wright & Taylor, 2014).

Thus, concerning the issues being addressed above, the current study aimed to explore child's factor's as well as parental factors such as their motivation, expectation, communication, competence and barrier on parental engagement in Speech Therapy HBP for Speech and Language Disordered children.

1.3 Problem Statement

Problem statement is a section that explains clearly the problem with sufficient contextual detail to establish the importance of solving the problem (Rassel et al., 2020). Based on this reference the problem statement was clarified.

For the past decade in Malaysia, SLD cases have been increased and were common among children with developmental delay. Based on the data from the Ministry of Health (MOH), government hospital statistical data reported by the Health Informatics Centre (HIC) showed that there is about 10-20% yearly increase in SLD cases. Additionally, cases involving SLD in children seems to be the highest cases around 60-70% every year compared to other Speech Therapy cases such as Voice Disorder, Swallowing Disorder, Augmentative and Alternative Communication, Motor Speech Disorder and Speech-Language Disorder in adults. Over and above that, untreated SLD is at higher risk of behavioural problems, emotional and psychosocial difficulties, poorer mental health, and reduced employment prospects (Bercow, 2018; Johnson et al., 2010; Qi et al., 2020; Toseeb et al., 2020). The rising cases of SLD in Malaysia and the risk of untreated SLD need to be taken seriously, hence the reason that drives to this study.

Speech Therapy for SLD need to effectively involve parents as a step to increase the amount of intervention received by children; the best way is by expanding the carryover of learned speech and language skills via environmental exposures delivered at home (Pappas et al., 2008; Sugden, Munro, et al., 2019). As these actions are inherently dependent on parents, thus parents engagement was identified as one of the critical component needed for the successful delivery of Speech Therapy for children with language impairment (Klatte & Roulstone, 2016). Although parental engagement in Speech Therapy HBP is essential, it is often overlooked as one of the component of a successful speech therapy intervention for the remediation of SLD particularly in children (Roberts, 2015).

SLTs in both Malaysia and Australia have reported that lack of parental compliance seems to be the highest challenges in an intervention. This might be due to parent's low motivation and cooperation, as well as the lack of carryover of activities from therapy to home. Parents usually expect that SLTs would perform miracles on treating their child (Joginder Singh et al., 2011). Other studies also found that parental adherence for parenting programs that involve children with developmental delay is estimated to be lower than 50% (Başaran et al., 2014; Psihogios et al., 2019) and 40–60% stop attending part way through the program (Axford et al., 2012; Morawska & Sanders, 2006). What is more worrying is that the low parental engagement is associated with a wasted source of service, ineffective intervention (Spoth et al., 2000) and poorer clinical outcomes (McMurrin et al., 2010). As a result, the service provider would be negatively impacted. For example, it may cause them to have lower confidence and lower self-esteem due to poor clinical outcomes (Garfield, 1994; Phoenix et

al., 2019). Despite that, the reason of not adhering to the recommendation in interventions and home-programme were poorly understood and not been conclusively documented (Rone-Adams, Stern, & Walker, 2004; Sugden, Baker, Munro, & Williams, 2016). The study on factors that affects parental engagement therefore is imperative and will lead to strategies that may improve adherence to interventions.

Based on the recent theory of parental engagement by Phoenix et al., 2019, The child, parent, service provider, and organisational factors have an impact on engagement. However for this study, the focus was given particularly on the child (the number of siblings, medical condition) and parent factors (motivation, expectation, communication and competence) as well as barrier to treatment that includes the therapy demands.

Motivation, expectation, communication and competence may influence parental engagement, where a high level of motivation, expectation, communication and competence increased the probability of parents engaging in the intervention (Danko et al., 2016; Klatte et al., 2019; Phoenix et al., 2018). Meanwhile, parental engagement was reported increased when the perceived barrier was supported by clinicians (Chacko A et al., 2012). These factors may limit or enhance the success of parental engagement in HBP, which in turn may affect the intervention outcomes for children with SLD. Most previous studies on parental engagement reported the use of qualitative method (King et al., 2021; Pellecchia et al., 2018; Phoenix et al., 2019) but factors related to parental engagement often relies on quantitative approach using measurement such as self-administered questionnaires.

Thus, the current study aimed to explore the relationship between motivation, expectation, communication, competence and barrier with parental engagement in Speech Therapy HBP for SLD children. This study also determined the factors that significantly affect parental engagement. Moreover, past research mostly focused on education (Fenton et al., 2017) and mental health issues (King et al., 2014). There is relatively dearth of research on parental engagement mainly on Speech Therapy HBP; hence it is crucial to carry out this study.

In addition, limited research has examined the indirect effect of motivation, expectation and communication on parental engagement. The study by Nock & Photos (2006) showed that the relationship between parent motivation and engagement were mediated by perceived barriers to participate in treatment. Moreover, based on a recent study by Arellano et al., (2019) despite the earlier acknowledgement of the relationship between parental expectation and competence, there was lack of research exploring relations between the two in parental engagement. Meanwhile, James et al., (2015) agreed that an essential strategy for parents to engage in the therapeutic process is through clarifying parents expectation with good communication with clinicians. Necessarily, examining the mediating effects of barrier on the relationship between motivation

and parental engagement, as well as the mediating effect of competence on the relationship between expectation and communication with parental engagement were included in this current study.

Finally, this study examined child factors related to parental engagement. Past studies have found differences in parental engagement among the number of children in the family (Praphatthanakunwong et al., 2018) as well as child's medical condition (Watts Pappas et al., 2015). However, there was limited research available, and to enhance the understanding of parental engagement, both factors were included for the local context in this study.

1.4 Research Questions

Based on the statement of problem, four research questions were derived, The research questions are:-

1. What are the background of parent and child with SLD in the Klang Valley, Malaysia?
2. Is there any relationship between motivation, expectation, communication, competence, barrier and parental engagement in Speech Therapy?
3. Does parental engagement vary according to the number of children in the family and child's medical severity?
4. What are the factors that predict parental engagement in Speech Therapy?
5. To what extent does the barrier and competence mediate the relationship between motivation, expectation, communication and parental engagement in Speech Therapy?

1.5 Research Objectives

Based on the research questions aforementioned, this study aimed to investigate motivation, expectation, communication, competence and barrier of parental engagement in Speech Therapy HBP for SLD children in the Klang Valley, Malaysia. The specific objectives were listed as below:

1.5.1 Specific Objectives

1. To describe parent background (sex, age, race, education level and household income), child background (sex, age, siblings and medical diagnosis) and variables involved which are motivation, expectation, communication, competence, barrier and parental engagement.
2. To determine the relationship between motivation, expectation, communication, competence, barrier and parental engagement in Speech Therapy HBP for SLD children.
3. To compare parental engagement between one child and more than one child in the family.
4. To compare parental engagement between a child with no medical condition and a child with a medical condition.
5. To determine the predictors that significantly influences parental engagement in Speech Therapy HBP for SLD children.
6. To examine the mediating effects of barrier on motivation and parental engagement in Speech Therapy HBP for SLD children.
7. To examine the mediating effects of competence on expectation, communication and parental engagement in Speech Therapy HBP for SLD children.

1.6 Research Hypotheses

The alternative hypotheses in this study were derived from the research questions in a declarative statement, the study is trying to prove that there is a statistically significant relationship between the variables (Cortinhas & Black, 2014). Alternative hypotheses was chosen instead of null hypotheses because the hypotheses was inferred from the pass literature. Furthermore, for most researcher, unlike the null hypothesis, the alternative hypothesis is usually of most interest (Salkind, 2010). There were eleven alternative hypotheses (Ha) stated in this study that were aligned with the specific objectives (objective 2, 3, 4, 5, 6 and 7):

Objective 2: To determine the relationship between motivation, expectation, communication, competence, barrier and parental engagement in Speech Therapy HBP for SLD children.

Ha1: There is a significant positive relationship between motivation and parental engagement.

Ha2: There is a significant positive relationship between expectation and parental engagement.

Ha3: There is a significant positive relationship between communication and parental engagement.

Ha4: There is a significant positive relationship between competence and parental engagement.

Ha5: There is a significant negative relationship between the barrier and parental engagement.

Objective 3: To compare parental engagement between one child and more than one child in the family.

Ha6: There is a significant difference in parental engagement between one child and more than one child in the family.

Objective 4: To compare parental engagement between a child with no medical condition and a child with a medical condition.

Ha7: There is a significant difference in parental engagement between a child with no medical condition and a child with a medical condition.

Objective 5: To determine the predictors that significantly influences parental engagement in Speech Therapy HBP for SLD children.

Ha8: There is a likelihood that motivation, expectation, competence, communication and barrier to significantly predict parental engagement in Speech Therapy HBP for SLD children.

Objective 6: To examine the mediating effects of barrier on motivation and parental engagement in Speech Therapy HBP for SLD children.

Ha9: Barrier mediates the relationship between motivation and parental engagement in Speech Therapy HBP for SLD children.

Objective 7: To examine the mediating effects of competence on expectation, communication and parental engagement in Speech Therapy HBP for SLD children.

Ha10: Competence mediates the relationship between expectation and parental engagement in Speech Therapy HBP for SLD children.

Ha11: Competence mediates the relationship between communication and parental engagement in Speech Therapy HBP for SLD children.

1.7 Significance of the Study

The current study focuses on identifying factors that contribute the most to parental engagement in Speech Therapy HBP for SLD children. Various factors may affect parents to be engaged in practising Speech Therapy homework. Thus it is essential to identify the significant contributors of parental engagement to establish strategies to optimise parental engagement which in turn may improve a child's speech and language outcome.

Moreover, limited studies are investigating the relationship between parental engagement and contributing factors namely, parents' motivation, expectation and competence, as well as communication of practitioners with parents and barriers or demands of therapy on parents, specifically in the Malaysia contexts. Besides, past research focused more on education and mental health (Jeynes, 2018; Pereira & Barros, 2018; Rattenborg et al., 2018), while only a few studies have studied on Speech Therapy area (King et al., 2021). Thus, this study is significant in the research field as it filled the literature gap in explaining factors that affect parental engagement in Speech Therapy, particularly in practising HBP with their child.

The results of this study can be made public by publishing and distributing to various parties in the nation. Based on this study, the understanding of parental engagement can be enhanced as well as contributors of engagement among parents can be identified. Consequently, practitioners, policymakers, researchers and the ministry can refer to this study regarding the various factors that affected parental engagement when planning intervention and prevention program for Speech and Language Disordered cases.

Lastly, the findings of the present study can be served as a reference for other future studies to expand the ideas in the field. Future research can identify other different aspects of parental engagement by expanding on the current research. Studies involving intervention or therapy characteristics can be taken into consideration for future studies. The results can contribute further regarding this field in Malaysia which will benefit the nation.

1.8 Theoretical Background

A theory is a generalized phenomenon which is accepted by many of people in the society. On the other hand, model is a physical or symbolical representation of a concept which were developed and used in order to clarify something (McGregor, 2018). The present study was guided by the Phoenix Theory of Attendance, Participation and Engagement (Phoenix et al., 2019), which explains substantively factors that are important for parents' attendance, participation and engagement in children's rehabilitation services. Additionally, the Engagement Capacity Model (Sieck et al., 2019) that were based upon Social Cognitive Theory (Bandura, 1986) was adopted to understand the capacity for patient engagement. The theory and model were discussed concerning parental engagement in Speech Therapy HBP for SLD children.

1.8.1 The Phoenix Theory of Attendance, Participation and Engagement (PTAPE)

The Phoenix Theory of Attendance, Participation and Engagement (PTAPE), from this point onward, would be called PTAPE, was developed using a constructivist grounded theory study, in which constant comparison and theoretical sampling was applied. The development of the theory was based on Family-Stress Theory to define high-risk families and families of children with disabilities, describing the services that they are typically offered and barriers to service use. This work informed the thesis study by highlighting the need to use a holistic approach to study the family's challenges and resources and to sample interview participants who varied by level of service use. Credibility was enhanced through reflexivity, triangulation, and peer debriefing.

Based on Figure 2.1. The theory comprehensively covers the condition that facilitates or inhibit families from attending, participating and engaging in children's rehabilitation services (ABCDEF), firstly the theory explains about (A) the family composition which includes adults and child factors, such as parents age, or the number of children in the family. Secondly, the health complexity (B) is about the physical and mental health of the members of the family. Thirdly, service complexity (C) represent the organizations and professionals involves. The ABC factors were the reason that may be seen as barriers that can increase or reduce the process of attendance, participation and engagement for parents (D) that include six factors, namely, logistics, values and beliefs, knowledge, feelings, skills and relationship with the professional. Next, is the factor that affects the process (E), these factors can either enhance or decrease the attendance, participation and engagement, which were identified as expectations, motivation, communication, resources, and timing. Finally, the destination of the child (F), which most parents hope, is for their child to be healthy and happy.

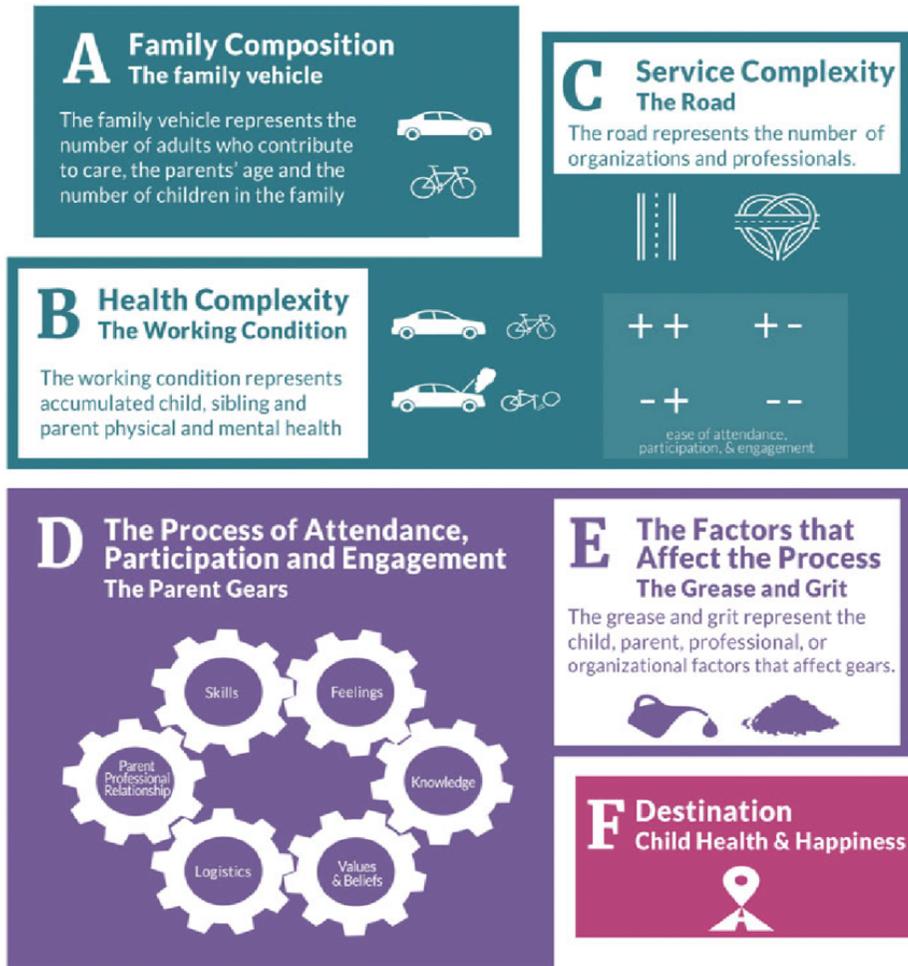


Figure 1.1: The Phoenix Theory of Attendance, Participation and Engagement (Phoenix et al., 2019)

1.8.2 The Engagement Capacity Model (ECM)

The Engagement Capacity Model (Sieck et al., 2019) or ECM, from this point onward, would be called ECM, is a model that conceptualize engagement capacity based on Albert Bandura Social Cognitive Theory (Bandura, 1986), the theory describes the various ways that individual acquire behaviour. Researchers believe that person, environment and behaviour are interconnected and have strong influences with each other. Understanding this concept may enhance clinicians skill to assist in patients engagement. The ECM revolves around the person-environment-behaviour concept, which includes four elements, the first is self-efficacy, describe as an individual's belief in their capability to perform a behaviour. The model believes improvement in self-efficacy leads to an increase in adherence to the treatment procedure. The second element is resources, seen as external factors that support the individual to participate; this may include financial resources, access-related resources and person-related resources. The model explains that patients lack of resources were less likely to engage fully in their treatment. Willingness is the third element related to the patient preparedness to proceed or take action; for example, patient ability to engage may be inhibited by his unwillingness to share information. All the above three elements are supported by patients knowledge, understanding and skills that make them able to act, which are called capabilities in this model.

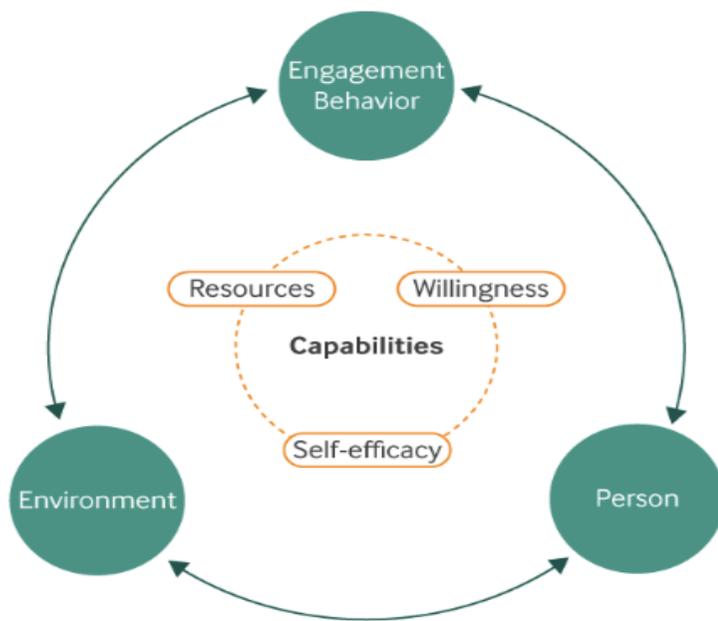


Figure 1.2: The Engagement Capacity Model (Sieck et al., 2019)

1.8.3 Integration of Theories

There was no single theory or model that can explain the predictors and mediators of parental engagement. Therefore, in the current study with respect to, first, the differences and similarities between the PTAPE and the ECM, second, according to the existing literature around each of the model and theory mentioned earlier, a theoretical framework attempting to explore parental engagement in Speech Therapy HBP for SLD children in Klang Valley, Malaysia were illustrated in Figure 2.3. In the ECM, behaviour such as engagement is influenced by two elements, namely person and environment; hence changes in these elements may change engagement. Therefore features in the PTAPE has been recognized to fall into this concept. In this study, (A) Family composition consists of the child's sibling or the number of child in the family. (B) Health complexity is the child's medical diagnosis. (C) Service complexity is the perceived barrier which was related to the demands and issues in therapy. (E) Factors that affect engagement including, a parental motivation which represent parents' motivation to participate in their child's speech and language development, a parental expectation of Speech Therapy and parent-clinician communication during therapy. In the meantime, self-efficacy in the ECM signifies parent competence in doing HBP. Finally, all the factors believed to be related to each other and changes happen when one element change which then leads to the decrease or increase of (D) Behavioural Engagement that focuses on parental engagement in doing Speech Therapy HBP.

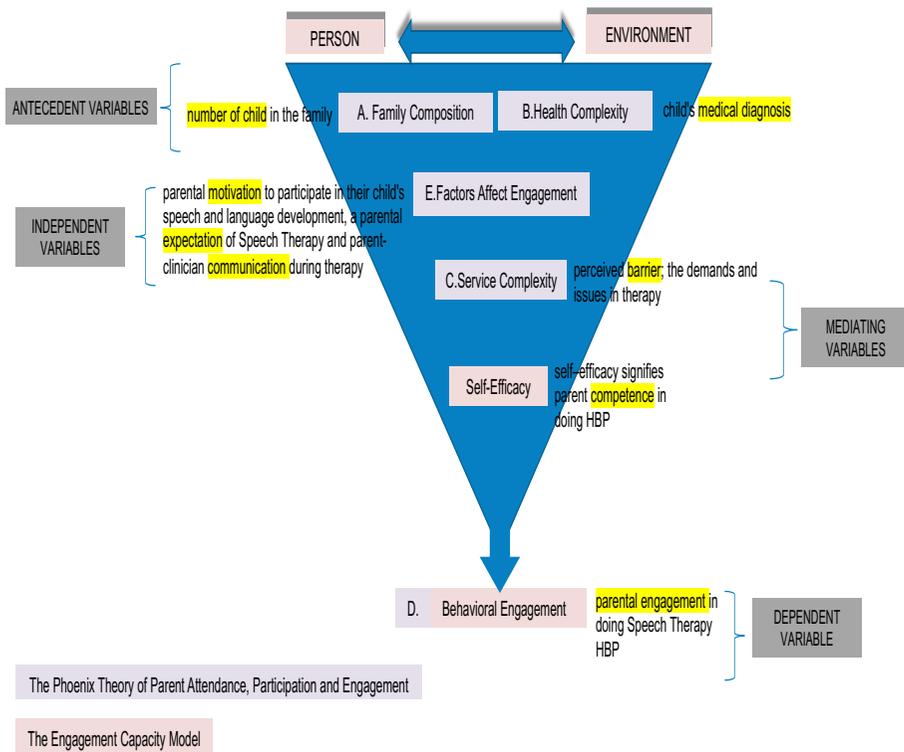


Figure 1.3: The Theoretical Framework for the Study

1.9 Conceptual Framework

The conceptual framework of the current study is constructed from the PTAPE (Phoenix et al., 2019) and the ECM (Sieck et al., 2019). As illustrated in Figure 2.4., the motivation, expectation, communication, barrier, competence are assumed as the predictors of parental engagement. Also, competence is expected to be predicted by expectation and communication. Considering the direct effect that competence has on engagement, it can play a role as the mediator between its predictors and parental engagement. Moreover, the barrier is assumed to be anticipated by motivation. Eventually, considering the barrier's direct effect on engagement, it can mediate the effect of its own predictor to parental engagement. Finally, the difference in the child's sibling (number of child in the family), as well as child's medical condition (severity), are assumed to have a different level of parental engagement.

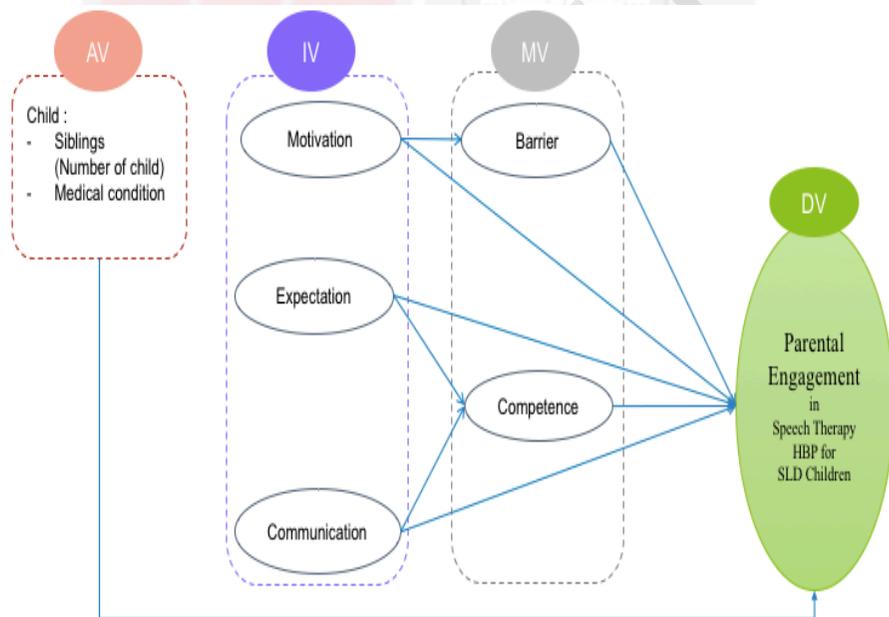


Figure 1.4: Conceptual Framework for the Study

1.10 Definitions of Terms

1.10.1 Speech-Language Therapist (SLT)

Speech-language Therapist (SLT), are professional who work to prevent, assess, diagnose, and treat speech, language, communication, feeding in infant and toddlers and swallowing disorders in children and adults (American Speech-Language-Hearing Association, 2019). In Speech and Language Disorder (SLD) cases, SLTs have a crucial role to play in the diagnosis and in supporting people with SLD, as well as their families and the other relevant professionals, to understand their diagnosis, achieve their potential and reduce the impact of their difficulties (Ebbels et al., 2019).

1.10.2 Speech Therapy for SLD

In Speech Therapy for SLD, the SLT works with parents and families to set goals for the child. Treatment goals are potential to increase a child's understanding and improve the child to use words to tell others what they think, which may include simple gestures, picture boards, or computers. Finally, SLT will guide and teach families on how to stimulate the child's speech and language in and out of therapy session (Kathryn Polmanteer, 2018).

1.10.3 Home-based Program (HBP)

Home-based Program (HBP) involved parents using therapy activities at home in between therapy sessions (Ruggero et al., 2012). HBPs, are sometimes also termed 'parent interventions', 'parent training models', 'indirect therapy', 'homework', 'home practice', 'home therapy' or 'home-based therapy' (Eiserman et al., 1990). For this study, HBP consist of any speech and language activities that are given by the Speech Therapist for parents to practice with their Speech and Language Disordered child at home in between Speech Therapy sessions.

1.10.4 Parental Engagement

Conceptual definition:

Cunningham & Henggeler (1999) defined engagement as “session attendance, homework completion, emotional involvement in sessions, and progress toward goals”. Across the literature on engagement, other terms were used interchangeably such as participation, adherence, and compliance which refer to patients that kept their appointments and stayed in the treatment (Littell et al., 2001). For this study, focus was given on parental engagement in Speech Therapy HBP.

Operational definition :

Parental engagement was measured using parent home-based compliance questionnaire with four items on 5 Likert scale (Law & King, 1993). A higher score means greater parental engagement.

1.10.5 Motivation

Conceptual definition:

Motivation refers to one’s will or desire to do something (Renninger & Hidi, 2016). Motivation is defined as the inclination, emotion, energy and drive associated with learning, working effectively, and achieving (Martin et al., 2017). Hence, for this study, motivation is focused on parents’ perceived motivation related to Speech Therapy for their child.

Operational definition:

Motivation was measured using Parent Motivation Inventory (PMI) by examining three elements that include “parents’ desire for change in their child, parents willingness to change their behaviours in order to influence child change, and parents’ perceived ability to change such behaviours” (Nock & Photos, 2006). A higher score indicates greater parent motivation for their child treatment.

1.10.6 Competence

Conceptual definition:

Competence is related to the sense of mastery and efficacy in particular activities. The feeling that we are capable of what we do and able to accomplish and achieve our goals (R. Ryan & Deci, 2000). For this current study, competence means parents perceived competence to practice Speech Therapy HBP for their SLD child.

Operational definition:

Competence was measured using the Perceived Competence Scale from Self Determination Theory. The scale uses four items on a 7 Likert scale (Williams, G. C., Freedman, Z.R., & Deci, 1998). A higher score means higher perceived competence.

1.10.7 Expectation

Conceptual definition:

Expectation is described by (Barron et al. (2007) as anticipation or belief about what should happen. Expectations include a set of future ideas that inform reasoning, judgement, decision making and behavior (Roese & Sherman, 2007). In this current study, expectation is related to parents' expectations for Speech Therapy services.

Operational definition:

Expectation was measured using Parental Expectation Scale (Macintyre, 2018), that consist of 4 items on a 7-Likert scale, where a higher score reflects expectation that is more unity with the Speech Therapy service.

1.10.8 Communication

Conceptual definition:

As mention by Carrigan, Rodger, & Copley (2001) "communication refer to the nature of the communication between the two parties and includes the degree of friendliness, positive/negative affect, voice tone". Additionally, communication was reported as approval, empathy, caring, collaborative and encouraging behaviours of the therapist on parents in paediatric cases (Wasserman et al., 1984). For the purpose of this study, communication was focus on three

dimensions parent-therapist communication which consist of caring, interest and collaboration of SLTs as perceived by parents.

Operational definition:

Communication was measured using Parent-Therapist Communication questionnaire which consists of 15 items that were categorised into three dimensions, that includes caring (six items), collaboration (four items), and interest (five items) (Bachner et al., 2006). A higher score in communication indicates a greater level of parent-therapist communication.

1.10.9 Barrier

Conceptual definition:

Barrier refers to treatment demands and issue that represent parents' concerns, and complaints about the treatment, including that treatment, was costly, too long, confusing, demanding or difficult (Kazdin et al., 1997).

Operational definition:

Barriers were measured using Barrier To Treatment Participation subscale to measure treatment demands and issue which consisted of 10 items on a 5-point scale (1 = never a problem, five = very often a problem) (Kazdin et al., 1997). The subscale uses negative qualities, where a lower score reflects a lower perceived barrier by the parents.

1.11 Summary of The Chapter

This chapter started with the introduction of the study background and statement of the problem. It is then followed by the general and specific objectives, hypotheses, significance of the study and end with the definition of the terms. The next chapter is the literature review to support the current research.

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