

ประสิทธิผลของการนวดสัมผัสบนศีรษะของเด็กออทิสติก

วันวิสาข์ ศรีสุเมธชัย^{1,2}, สุรศักดิ์ ฐานิพานิชกุล³, สุพร อภินันท์เวช⁴

¹ นักศึกษา วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

² อาจารย์ คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล

³ อาจารย์ วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

⁴ อาจารย์ คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อวัดประสิทธิผลของเทคนิคการนวดสัมผัสบนศีรษะของผู้ป่วยออทิสติกในการแก้ไข ปัญหาพฤติกรรม เทคนิคการนวดแบบสัมผัสมีประสิทธิผลในการดูแลผู้ป่วยออทิสติกในการเปลี่ยน ปัญหาพฤติกรรม โดยรูปแบบการศึกษาเป็นแบบสุ่มและมีกลุ่มควบคุม เพื่อศึกษาปัญหาพฤติกรรมของเด็ก ออทิสติกซึ่งประกอบด้วยปัญหาการขาดความสมดุลในการสื่อสารและปฏิสัมพันธ์ทางสังคมในบริบทต่างๆ การใช้คำพูดที่ไม่เป็นรูปแบบหรือการมีพฤติกรรมซ้ำๆ โดยเป็นการเก็บข้อมูลจากกลุ่มผู้ปกครองที่ใช้การนวด สัมผัสบำบัด

หลังจากการฝึกอบรมเทคนิคสัมผัสบำบัดแล้วผู้ปกครองได้นำเทคนิคไปนวดให้กับเด็กออทิสติก ของ ตน โดยการติดตามผลลัพธ์เทคนิคการนวดแบบสัมผัส ได้กำหนดการติดตามผลในเดือนแรกหลังการฝึกอบรม และติดตามในทุก 2 และ 3 เดือนสำหรับการติดตามผลและทำซ้ำในขั้นตอน ผู้ปกครองทุกคนรายงานว่าพวกเขา รับรู้ถึงความสำคัญ จากการติดตามผลพบว่าผู้ปกครองหลายคนเดินทางไปต่างจังหวัด จึงไม่ได้นวดสัมผัสให้กับ เด็กออทิสติกในช่วงที่พวกเขาอาศัยอยู่ต่างจังหวัดและเด็ก ๆ ไม่ได้ไปที่ศูนย์ออทิสติก ผลการศึกษาด้วยการ วิเคราะห์การถดถอยโลจิสติกแบบพหุคูณโดยรวมพบว่าสามารถลดพฤติกรรมเด็กออทิสติกในด้านการขาดความ สมดุลอย่างต่อเนื่อง รวมถึงในด้านการสื่อสารทางสังคม ปฏิสัมพันธ์ทางสังคมและลดการขาดความสมดุลใน พฤติกรรมสื่อสารแบบอวัจนภาษาที่ใช้ในการปฏิสัมพันธ์ทางสังคม ซึ่งผลการทดลองพบว่าแต่ละตัวแปรมี ความสัมพันธ์กับผู้ปกครองที่ใช้การนวดสัมผัสให้กับเด็กออทิสติก รวมทั้งอาการออทิสติกได้รับการปรับปรุงด้วย การนวดกดจุดบำบัดใน 7 ข้อยกเว้นพฤติกรรมซ้ำ ๆ พฤติกรรมหลักเสี่ยงหรือกังวลเกี่ยวกับเสียงในสนามเด็กเล่น ดังนั้นการฝึกผู้ปกครองให้ใช้เทคนิครูปแบบการนวดสัมผัสในเด็กออทิสติกช่วยลดอาการพฤติกรรมยุ่งเหยิงได้

คำสำคัญ: ประสิทธิภาพ/ การฝึกผู้ปกครอง/ นวดสัมผัส/ ออทิสติก

The Effectiveness of Healing Touch Massage on The Head of Autistic Children

Vanvisa Sresumatchai^{1,2}, Surasak Taneepanichskul³, Suporn Apinuntavech⁴

¹ Student College of Public Health Sciences, Chulalongkorn University

² Lecturer, Faculty of Public Health, Mahidol University, Ratchathewi, 10400, Thailand

³ Lecturer, College of Public Health Sciences, Chulalongkorn University

⁴ Lecturer, Faculty of Medicine Siriraj Hospital, Mahidol University, 10700, Thailand

Abstract

The study aimed to measure effectiveness of healing touch technique among autistic patient on changing of behavior problems. Healing touch technique has effectiveness to caring for autistic patient to changing of behavior problems. This study designed as a randomized, open-label control trial study conducted to measure individual behavior problem comprised of persistent deficits in social communication and social interaction across contexts, stereotyped or repetitive speech, for the objective and subjective information in parent training with healing touch massage.

After training, the parent had to massage their children for follow-up results and repeat healing touch massage technique. The schedule follow up was the first month after training, again in every 2 and 3 months for follow-up and repeat the step. All parents reported that they perceived the importance of the follow-up. Many parents had to travel over a long distance as they resided in the provinces and children not go to Autistic Center. The results of generalized binomial logistic regression analysis as contain behavior of autistic in persistent deficits in social communication and social interaction and deficits in nonverbal communicative behaviors used for social interaction. The results of each variable in relation to parent were used healing touch technique massage. It was found that this symptom of autistic was improved with healing touch massage in 7 criteria unless repetitive behavior, avoid or concern the sound in playground and distracted. Therefore healing touch massage for autistic children with parent practice reduced disruptive behavior of autistic symptom.

Keywords: Effectiveness/ Parent Training/ Healing Touch Massage/ Autistic

Corresponding author: Surasak Taneepanichskul, Email: surasakta@yahoo.com, Tel: 022564000

Introduction

The general consensus is that behaviorally oriented parent training procedures used with the general population, and to some extent with developmentally disabled populations, are effective for parents of children with ASD¹. Having said this, authors also stress that ASD presents with a wide range of symptom patterns and challenging behaviors². Thus, the likelihood that parents would need and could benefit from such training is significant.

It is also important to stress that dropout rates from parent training in general are high. Forehand and team³ note that for typically developing children with challenging behaviors the rate was 28%. And, parents who perceived the treatment to be ineffective are more likely to drop out. Thus, training parents using the procedures that have the most evidence to support their efficacy would seem prudent. Along these lines the research about parent training⁴ recommended a training model that focused on functional skills and which employ behavioral methods that enhance generalization and maintenance. The effective methods described which have an evidence base, rely on behavior therapy/applied behavioral analysis. A description of some of these interventions is as follows.

The notion that parents of children with ASD should be involved in their treatment, and that this involvement should

come at an early age, is not a new one⁵. Typical effective parenting methods are provided by evaluated a caregiver-based intervention program for children with autism in community day-care centers⁶. They describe care givers being trained to provide services to their children in community based day care centers. One of the best known and most commonly used training procedures, particularly for young children with ASD, is discrete trial training. Thus, a logical step would seem to be parent training in the procedures on child correct responding did just that⁷. They taught three mothers of developmentally disabled children. Furthermore, they reported generalization of these applied behavior analysis principles to novel skills. It should be noted, that while this is the only study devoted exclusively to describing discrete trial training to parents, it has been achieved in other contexts. Numerous large package treatments of 20–40 hour per week over a year time and described as early intensive behavioral interventions employ discrete trial training. In these studies, teaching parents to carry out these methods in addition to trained therapists are commonly reported⁸.

The study aims to measure effectiveness of healing touch technique among autistic patient on changing of behavior problems. Healing touch technique has effectiveness to caring for autistic patient to changing of behavior problems. The efficacy of

parent training is activities therapy for development children with disruptive behavior from preschool through adolescence were supported by over 30 years' stringent evaluation⁹. Parent training is an empirically truth with supported intervention for children with disruptive behavior uncomplicated by ASD¹⁰. Parent training provides parents with use specific techniques to management behavioral problems in children. Notwithstanding growing interest in parent training for children with ASD and pilot studies supporting its use techniques, it has not been analyzed in large-scale randomized trials¹¹⁻¹⁴. Because the method is a time-limited intervention that could be implemented in a range of settings, including clinics and schools, indicate the efficacy of parent training in ASD could have significant public health implications. Parent training has also been practical for children with intellectual disability uncomplicated by autism¹⁵.

The intervention of developed a parent training manual and conducted a series of research showing that that program is acceptable to parents, can be reliably delivered by trained therapists, and confers additional benefit when used in combination with medication¹⁶⁻¹⁷. The imperative for parent training for children with autism is well founded as disruptive behaviors bear upon as many as 50-70% of autism children¹⁸⁻¹⁹. In generally, observed for disruptive behavior problems in autism include tantrum, aggressive,

noncompliance with routine demands, self-injury, property destruction, recklessness, and hyperactivity.

Methodology

This study was designed as a randomized, open-label control trial study was conducted to measure individual behavior problem comprised of persistent deficits in social communication and social interaction across contexts, stereotyped or repetitive speech, for the objective and subjective information in parent training with healing touch massage. Sample size for binary logistic regression study, Hosmer, Lemeshow, and Sturdivant suggest conditions in which the minimum sample of 10–20 observations per independent variable of the model, meanwhile Likewise, Leblanc and Fitzgerald suggest a minimum of 30 observations per independent variable to should be sought to achieve empirical validity. A random sampling was applied to recruit individual into this study (Figure 1).

The total number 64 guardian and autistic children were selected by simple random sampling (SRS) strategy which every possible sample of given size has the same chance of selection. All guardian and autistic children in of each sampled were selected into this study. Therefore, total 115 guardian and autistic children in Nonthaburi Autistic Center were the sample of this study. However, only 64 guardian and autistic

children were able to recruit into this study. Inclusion criteria of patient with mild autistic were autistic patient who with diagnosis from physician were mild autistic and age between 13 to 25 years at Nonthaburi Autism Center and autistic patient who did not permission from the guardian to participate of this study. The follow-up explanation healing touch massage model used to describe the quantitative results. The describe approach sequential was two-phase mixed methods design that begin with gathering parent and analysis of quantitative data that followed by the collecting and analysis of quantitative data for explain and enhance the quantitative finding²⁰⁻²¹. In this healing touch massage model, the researcher recognizes specific quantitative results that require additional describe, such as binary logistics for present the differences among two group, dimension intercept for the three time of follow-up. Then, the researcher gathering qualitative data from parent of autistic who used massage technique on the head of their children²². The questions for used in the qualitative embedded approach assumes that data and theories are neither emergent nor discovered but rather are constructed by both the researcher and the research participant^{23, 24}. (Figure2)

Participants and setting

In this research planning a study of independent cases and controls with 1 control(s) per case. This study is not estimate for drop-out from the intervention because participant is the student of Nonthaburi Autistic Center, so all participants are 64 participants in this study equal 32 participants in each group. As for the study's quantitative strand, a sample size of 32 is recommended for this research design. Participants were recruited from parent of autistic patient at Autism Center Nonthaburi, Nonthaburi province. For inclusion criteria of parent were mother of autistic patient, no illness, disability as results that can not to use healing touch techniques for autistic patient, and to attend the training with healing touch techniques for autistic patient. Patient with mild autistic, patient with diagnosis from physician were mild autistic and age between 13 to 25 years at autism center nonthaburi that who willing to attend the research study with parent, the consent from the parent to attend the trial.

The study was conducted in Autistic Center Nonthaburi in a province of Nonthaburi, Thailand. The only legitimate informants in phenomenological research are those who have lived the reality²⁵ in this study were parent of autism which study at the center. Therefore, recruitment strategies were directed

at selecting individuals who had healing touch technique the experience of being a parent of a child with autism. Participants were recruited through a support group whose purpose is training on healing touch technique which the facilitation for support to effective treatment. Twenty-three parents from 23 families of children with autism participated. Nineteen of the 23 parents were mothers, 2 were fathers, and 2 were guardian with a total of two couples participating in the study. The parents ranged in age from early 30s to late 40s. All parents were married except for one mother who was separated at the time of the interview. Except for 2 parents, all parents had at least one other child in addition to their child with autism.

The children with autism ranged in age from 13 to 25 years, with the children's age of initial diagnosis ranging from 3.5 to 4.5 years. The children with autism were all boys except for two children were girls. The children, as described by the parents, varied in the severity with respect to the degree of impairment in communication, social relations, and repetitive and stereotyped behavior. All of the children were training at Autistic Center Nonthaburi with available from government to support teacher training. However, the children with autism cannot study into school system and all of mother go to join program training at the center. The parents were eligible if they: 1) were autistic children who had cared for a child age between 13 years and 25 years with

mild autistic studying at nonthaburi autistic and no have symptom in seizures or epilepsy, 2) could communicate in Thai, and 3) parents agreed to participate in this study.

Participants had experience of healing touch technique in caring for their children for a period of 3 to 4 months after training from researcher to use with children before bed. Their children must to take the healing touch by parent for every night during October 2016 to February 2017. Parent's had experience in healing touch massage technique in caring autistics children for a period of 3 to 4 months after to take the training from the researcher. Their children's age with autism at Autistics Center Nonthaburi were 13 to 25 years. The researcher also emphasize that autism display with a wide range of symptom patterns and challenging behaviors²⁶. Therefore, the feasibility that parents would require and could actual benefit from such training is significant. That is also important to stress that dropout rates from parent training in general are high. Healing touch massage technique that present on figure 1 was sketch image of massage technique on forehead and child was lie on his back.

Data collection and ethical consideration

Ethical standards were maintained throughout the course of the project by careful attention to issues of recruitment, written consent, confidentiality, anonymity, potential vulnerability, and sensitivity. Ethical approval

from the human Research ethics committee from the Faculty of Public Health, Mahidol University (IRB No.2016-133). All parents were willing to participate in a recorded interview and gave their informed written consent. The interviews were conducted by a researcher in a quiet room of the autistic center nonthaburi conference room. The interviews varied from 30-60 minutes all of the data obtained from the interviews were transcribed verbatim.

Audio recorders, field notes and the semi-structured interview questions were used for gathering data. The main questions were as follows by; what are your experiences and feelings of being with you practice on healing touch massage with your child at home? What are your experiences and feelings regarding your life being on healing touch massage with your child at home?

Data Analysis

Qualitative phase: The qualitative data analysis includes the following steps. The first step is to transcribe the interviews for the parent of autistic. Transcribing involves a close observation of the data collected through listening to the audio recorded interview. Caution and close attention to details from in each parent that should be given to the transcribing process as this is a first interpretative process and crucial step in data analysis²⁷. The audio

recorded from the interviews will be transcribed into electronic format. Before analysis, the transcripts will be examined by the researcher and confirm with observation in the symptom of autistic together with the teacher to maintain accuracy and quality. Meaningless and redundant utterance like “you know” or “this thing” may be eliminated to aid in the clarification of analysis and increase the readability. Any language added by the researchers that intends to increase the clarity will be placed in brackets. The next step is coding. Coding is a process of sorting, organizing, summarizing and synthesizing the data. It is also operate as the basis of developing in-depth and analytical analysis. There are some differences and similarities for coding processes in qualitative studies depending on the nature, design and aim of the study. Throughout of the data analysis and interpretation, coding checks and theme review will be conducted with the researcher.

Quantitative phase: Generalized binomial logistic regression analysis will be conducted prior to the statistical analysis of the quantitative behavior of autistic. Data for general characteristics of autistic will include the descriptive statistics for all the variables, information about family, symptom of autistic, among of children in family. Descriptive statistics for the general of

children with autistic items will be summarized in the text and reported in tabular form. Later, inferential statistics will be conducted for hypotheses testing and further analysis. Statistical analysis of the quantitative results will be conducted with the help of the Statistical Package software.

Results

The study focus on the mix-method research methodology in research parent training with healing touch technique for take care autistic children .Five major themes of pare experiences using healing touch massage with support for development in behavior from the interviewed data. The themes could be described as follows figure 3

Learning and following Healing Touch Massage Technique All the parent had no previous experience in providing healing touch massage technique care for children with autistic. Many of them were problems to take care of their children while study at Autistic Center Nonthaburi and when their go back at home. Whoever, the ongoing daily information, knowledge and skill gained from researchers were important and made them confident and ready for complex tasks of their autistic children cared at home.

Researchers demonstrate, couples practice Healing touch massage skill All parents reported that researcher had taught emphasized and encouraged them to

practice their parent role since first step of the massage. These heightened their parent awareness and compliance.

“Researcher (Varvisa Sresumatchai) emphasized on healing touch massage and how to a lightly touch ... and where did the area on the figure to use... At first, I didn’t a lightly touch on forehead because of my son catch my hand, so I think my son like heavy massage. The researcher taught me how to do it and gave me a chance to try it on my own” (S14),

Beware of heavy massage and observe signs of autistic All parents reported that they were taught how to a lightly touch massage on forehead and around of head include watch for signs of autistic for the massage weight.

“Researcher emphasizes on lightly touch massage when the parent practice on the head of autistic. Also, I must always apply lightly touch massage on the head and found that children were asleep.” (S20),

“When lightly touch massage, you must observe their children were feel asleep. Is their shake head or hold the hand to stop the massage? if you are at home, you must practice healing touch massage on every day especially before bedtime.” (S15)

Strict of massage on every day practice as advised Most parents believed and strictly followed the researcher advice. Their parents learned from teach-back method. Parents reported that they had been taught and had practiced applying the

distraction forces post-research under the researcher taught meditation SKT for health promotion. They were also emphasized on note taking when their learned mediation. This made them feel confident in performing the tasks on their own at home.

“When autistic was returned home, we did healing touch massage as the researcher said. The massage on lightly and frequency that researcher had ordered to massage. We record everything in the document given by the researcher. We are strict about what the researcher has advised.” (S32),

“...my son goes to my bedroom and lay down after that catch my hand on his head every day... I have been confident and when returned home, I dare to do it.”(S1)

Facing difficulties when returning home In providing care at home, many parents experience difficulty from restlessness and problem behavior of autistic.

Unavailable the healing touch massage in every day After returning home, most parents described the feeling of difficulties for healing touch massage. The parents have more activities at home such as make a cooking and take care brother.

“We have more activities at home...I make cooking for family and I take car brother...when finish the activities too tired for the massage”(S10)

Some parent has difficulty for frequently to the massage After training, the parent had to massage their children for follow-up results and repeat healing touch massage technique. The schedule was the first month after training, again in every 2 and 3 months for follow-up and repeat the step. All parents reported they perceived the importance of the follow-up. Many parents had to travel over a long distance as they resided in the provinces and children not go to Autistic Center.

“We don’t massage on the head of the child because I went to province two week...I was busy and tired more than practice the massage to child” (S3)

The results of generalized binomial logistic regression analysis as contain behavior of autistic in persistent deficits in social communication and social interaction and deficits in nonverbal communicative behaviors used for social interaction. The results of each variable in relation to parent were used healing touch technique with them using generalized linear model for binary response were presented in Table1.

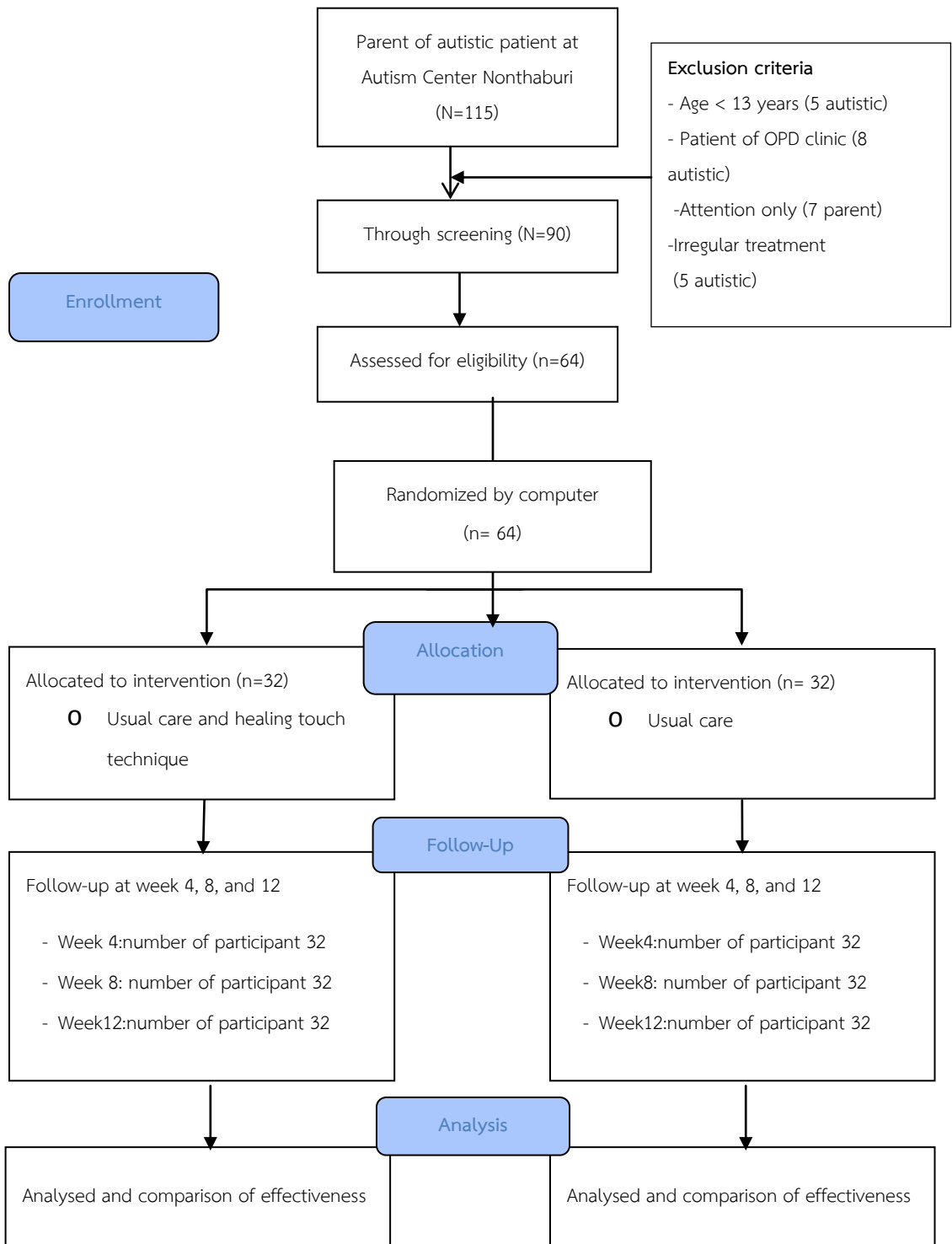


Figure 1 Parents Training Flow Diagram



Figure 2 Parents Practice Healing Touch Technique

Table1 Generalized linear model for deficits in social-emotional reciprocity

Variables	Model1 (Parent Training)			Model 2(Usual Care)			p	LR
	$\hat{\beta}$	S.E($\hat{\beta}$)	$\widehat{OR}$	$\hat{\beta}$	S.E($\hat{\beta}$)	$\widehat{OR}$		
Reciprocal Conversation								
Intercept	22.116			32.134			0.001	33.852
Baseline		0.576	8.884		0.582	2.698	0.003	
Follow-up I		0.600	16.074		0.665	0.110	0.000	
Follow-up II		0.610	17.695		0.623	0.096	0.000	
Follow-up III		1.112	19.406	0 ^a			0.000	
Pointing to Express Interest								
Intercept	15.350			35.096			0.007	83.495
Baseline		0.541	5.126		0.544	1.746	0.024	
Follow-up I		0.548	8.634		0.731	2.561	0.003	
Follow-up II		0.548	8.634		0.731	2.561	0.003	
Follow-up III		0.731	21.214	0 ^a			0.000	
Social Verbalization/Chat								
Intercept	42.267			13.582			0.039	83.675
Baseline		0.548	9.937		0.521	3.081	0.002	
Follow-up I		0.657	17.341		0.573	0.715	0.000	
Follow-up II		0.592	14.502		0.548	0.075	0.000	
Follow-up III		0.824	18.011	0 ^a			0.000	

*a. Set to zero because this parameter is redundant.

LR = Likelihood ratio test

Table 1 Binary Logistic for persistent deficits in social communication and restricted, repetitive patterns of behavior

Variables	$\hat{\beta}$	S.E. ($\hat{\beta}$)	Wald	df	Sig.	$\widehat{OR}$	95% C.I.	
							Lower	Upper
Lack of showing and directing attention	-5.135	1.224	17.608	1	0.000	0.006	0.001	0.065
Failure to use Range of Facial Expressions Used to Communicate	-4.900	1.112	19.406	1	0.000	0.007	0.001	0.066
failure to Response to Approaches of Other Children	-4.081	1.082	14.222	1	0.000	0.017	0.002	0.141
Lack of, or delay in, spoken language	-4.696	1.343	12.221	1	0.000	0.009	0.001	0.127
Repetitive Hand and Finger Mannerisms	-2.037	0.567	12.915	1	0.000	0.130	0.043	0.396
Avoid on the playground	-1.486	0.292	25.973	1	0.000	0.226	0.128	0.401
Repetitive behavior	2.402	0.539	19.889	1	0.000	11.046	3.844	31.746
Uncomfortable to sit on chair	-3.390	0.466	52.850	1	0.000	0.034	0.014	0.084
Avoid or concern the sound in playground	1.375	0.329	17.493	1	0.000	3.954	2.076	7.530
Distracted by noise	-1.466	0.291	25.454	1	0.000	0.231	0.131	0.408
Distracted with the picture	1.372	0.274	25.070	1	0.000	3.943	2.304	6.745
Difficulty to communicate with symbols	-1.036	0.281	13.621	1	0.000	0.355	0.205	0.615

For the results of binary logistics regression present on the value of $\hat{\beta}$ mean that the coefficient for the constant and also called the intercept of the model. For S.E, the standard error around the coefficient for

the constant of the model. Therefore, the Wald chi-square test that mean tests for the null hypothesis that the constant equals 0. This hypothesis is rejected because the p-value was smaller than the critical p-value of

.05. Hence, we conclude that the constant is not 0. The exponentiation of the B coefficient, which is an odds ratio. This value is given by default because odds ratios can be easier to interpret than the coefficient, which is in log-odds units. It was found that this symptom of autistic was improved with healing touch massage in 7 criteria unless repetitive behavior, avoid or concern the sound in playground and distracted with the picture present on Table 2. Therefore the final model of autistic symptom was the model presented in the table 2.

Discussion and Conclusion

From binomial logistics regression, parent with used model of healing touch technique to head massage for autistic were associated to reduce some of part in behavior problem among autistic children in Autistic Center Nonthaburi. The following discussion was mainly based on generalized linear models. Deficits in social-emotional reciprocity ration which described as social-emotion, from binary logistic analysis that it was significantly associate with parent used healing touch technique for head massage of autistic. This finding was consistent with effects of Thai Traditional Massage (TTM) for reduce autistic children's behavior that may have a positive effect in improving stereotypical behaviors in autistic children. However, the results of TTM from the

Conners' Parent Questionnaire revealed an improvement only for anxiety²⁸. Moreover, the reported effects of TTM presented an improvement in all of variable in impulsivity-hyperactivity, and anxiety and improvement seen for learning problems except for psychosomatic. This suggests that the study unable to follow up the patients upon the completion of the study since most of them were referred to the Centre.

The parent training to use healing touch technique program refers to the process of parent to practice the healing touch head massage with autistic children to reduce restricted and repetitive behaviors and improvement in social interaction communication and language. The results in this study found that parent with used healing touch technique to head massage can improvement that directing attention and offering to share. The results in lack of socioemotional reciprocity found that use of other's body to communicate, quality of social overtures, and inappropriate facial expressions can improvement duration 12-week, meanwhile results of improvement in social verbalization or chat and reciprocal conversation.

Improvement in nonverbal communicative behavior, healing touch massage with parent to used head massage for autistic children cannot improvement in direct gaze and social smiling except for

range of facial expressions used to communicate. The results of lack of, or delay in, spoken language and failure to compensate through gesture cannot to improvement after head massage in pointing to express interest, nodding, and head shaking but improvement only conventional or instrumental gestures.

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