MONITORING OF SOCIAL-EMOTIONAL PROBLEMS IN TRANSITIONING FOSTER CHILDREN AGED 0 TO 5

By

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ABSTRACT

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Monitoring of social-emotional problems in transitioning foster children aged 0 to 5.
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BACKGROUND: Foster children who have experienced adverse childhood events are at-risk for developing social-emotional problems that may ultimately lead to toxic stress. There is a lack of research on whether administration of a standardized questionnaire aids in the clinical documentation of social-emotional problems of foster children. The Ages and Stages Questionnaire: Social Emotional (ASQ:SE) is recommended by the American Academy of Pediatrics to identify social-emotional problems. The purpose of this DNP scholarly project is two-fold (a) to assess the social-emotional problems of foster children aged 0-5 using the ASQ:SE, and (b) to determine if administration of the ASQ:SE will identify social-emotional problems and improve clinical documentation versus use of provider surveillance only. METHODS: A retrospective chart review of a convenience sample of ten foster children, from birth to 4 years of age, was completed in a multispecialty clinical setting to examine documentation for social-emotional problems. The ASQ:SE was administered with the legal guardians of the same foster children. RESULTS: Both provider surveillance and administration of the ASQ:SE detected social-emotional problems in foster children aged 3 months-4 years. However, use of the standardized ASQ:SE detected more consistent behaviors across adaptive, affect, autonomy, communication, compliance, interaction and self-regulation themes than provider surveillance only. CONCLUSION: The systematic use of the ASQ:SE specifically improved identification of social-emotional problems in foster children up to

4 years of age compared to provider surveillance only and significantly improved clinical documentation, thus decreasing risk of toxic stress.

DEDICATION

To my Chair, Dr. Stephanie Woods and Co-Chair, Dr. Kathleen Jordan, I could not have done this without you. Thank you for believing in me, and most importantly, encouraging me to follow my passion. Your untiring effort, guidance, and support helped me to achieve a dream that I've had since childhood. I am forever grateful for your devotion to my DNP Scholarly Project endeavors.

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MONITORING OF SOCIAL-EMOTIONAL PROBLEMS IN TRANSITIONING FOSTER CHILDREN AGED 0 TO 5.

CHAPTER 1: INTRODUCTION

Across the nation, the Adoption and Foster Care Analysis and Reporting System (AFCARS, 2014) revealed that there are over 415,000 foster children who live with the effects of abandonment, abuse, and neglect. Researchers like Jee and colleagues (2010) have noted the rising development of toxic stress in children in foster care. According to Felitti and associates (1998) the Toxic Stress Response is an extreme, frequent, or extended activation of the stress response that causes distress and may lead to negative psychological and physical health outcomes for the child. Additional adverse events that young children in foster care may also experience include trauma, poverty or a parental history of substance abuse.

Social-emotional problems such as separation anxiety, attention deficit disorders, and behavioral problems may be indications of toxic stress in young children. According to Brown and colleagues (2012), social-emotional development is defined as "the developing capacity of the child from birth through five years of age to form relationships and regulate emotions" (p. 926). In an effort to prevent the occurrence of toxic stress, social-emotional problems should be accurately identified and communicated to those involved in the care of a foster child. Documentation in the child's medical health records is one method of communicating social-emotional problems. If social-emotional problems are identified early, then it is hypothesized that the detrimental life-long effects of toxic stress could be significantly reduced (Harvard University Center on the Developing Child, 2007).

Problem

In the United States, the AFCARS report (2014) documented over 255,000 children entering foster care annually. Children who are placed in out-of-home care because of chronic maltreatment are at a greater risk for developing toxic stress compared to their peers (Harvard University Center on the Developing Child, 2007). Foster care placement itself is not a risk factor for a child developing toxic stress; the adverse childhood experiences (ACEs) leading to placement into foster care is generally what places children at-risk for developing toxic stress. As children enter into foster care, social-emotional problems as a result of ACEs may be observed by various professionals involved in the care of the child.

Currently, the American Academy of Pediatrics (AAP, 2005) recommends the use of a standardized tool to screen for developmental and mental health problems in foster children. Although the AAP recommendations have been disseminated to pediatricians who care for foster children, there are a large number of health care providers diagnosing the child's social-emotional problems based on their personal clinical judgment versus using a standardized tool. Without consistent assessment of social-emotional problems, an interprofessional approach to care cannot be initiated to address any manifestations of toxic stress. While the number of children entering foster care is increasing annually, and despite the AAP recommendations, there is minimal research to support the use of a validated tool in clinical practice as a means of monitoring social-emotional problems in foster children (Jee et al., 2010).

Purpose

The purpose of this DNP scholarly project is two-fold (a) to assess the social-emotional problems of foster children, aged 0-5 years, using the Ages and Stages Questionnaire: Social-Emotional (ASQ:SE), and (b) to determine if the administration of the ASQ:SE will identify social-emotional problems and improve clinical documentation versus the use of provider surveillance only. Utilizing a standardized tool, such as the ASQ:SE, may be beneficial in assessing social-emotional problems before the development of toxic stress in foster children. It is important to compare the use of the ASQ:SE and provider surveillance only because each provider's methods of observation differ, and may not be reliable or valid in monitoring social-emotional problems of foster children. This project examines the use of a standardized tool to preliminarily assess, monitor, and communicate social-emotional problems for the foster care population.

Clinical Question

In foster care children, ages 0-5 years, who are at-risk for developing toxic stress, will the administration of the ASQ:SE compared to provider surveillance, improve clinical documentation of social-emotional problems during childhood?

Project Aims

The aim of this DNP Scholarly Project was two-fold (a) to assess the social-emotional problems of foster children aged 0-5 years using the ASQ:SE, and (b) to determine if administration of the ASQ:SE will identify social-emotional problems and improve clinical documentation versus use of provider surveillance only.

Project Objectives

The main objectives were to (a) implement a retrospective chart review of ten foster children's medical records at a multispecialty pediatric clinical setting, and (b) administer the ASQ:SE with the assigned social worker of the same ten foster children.

CHAPTER 2: SYNTHESIZED LITERATURE REVIEW

An extensive literature review was conducted utilizing the CINAHL Plus, Cochrane, and PubMed research databases. Three synthesized and evidence based research themes were suggested from a topic-related review over a 10 year period from 2006-2016. The themes were: the risk of foster children developing toxic stress, gaps in clinical documentation as a method to communicate social-emotional problems, and the use of the ASQ:SE as a possible means of documenting social-emotional problems.

Toxic stress risk for foster children

Toxic Stress Response is the extreme, frequent, or extended activation of the stress response that causes distress and may lead to negative psychological and physical health outcomes for the child (Felitti et al., 1998). Research has shown that children who are placed in foster care represent a special needs population at-risk for developing toxic stress (Jacobsen et al., 2013; Jee et al., 2010; Schilling, 2015; Scribano, 2015; and Taylor et al., 2008). Additionally, the same studies identified foster children to be at-risk for toxic stress because of previous exposure to adverse childhood experiences (ACEs). Collectively, it was determined that trauma, poverty, neglect, abuse, and disruption of primary care were common adverse events foster children encounter. Young children, notably under the age of five, are more likely to have a higher frequency of social-emotional problems when they have experienced adverse childhood experiences (Jee et al., 2010). It is important to address foster children aged 0-5 years because this age range accounts for the largest age range in the welfare system (National KIDS COUNT, 2013). The prolonged activation of the Toxic Stress Response can interrupt the maturation of the brain for this age group, increasing the risk of stress-related disease and cognitive

impairment (Harvard University Center on the Developing Child, 2007). As children are placed into foster care during early childhood, early intervention services are most beneficial towards normal growth and development (The American Academy of Pediatrics, 2005).

Gaps in the clinical documentation

Only two studies were found in the literature that addressed clinical documentation of social-emotional problems in foster children. Jee et al., (2010) and Szczepaniak et al., (2013), following completion of retrospective chart reviews, noted the importance of documenting accurate and reliable social-emotional assessments, recognizing essential data to be collected, and communicating the child's social-emotional problems to other members of the multidisciplinary team. There was a significant gap in the health care literature that supports or demonstrates how to improve clinical documentation of social-emotional problems in foster children. Inaccurate or lack of documentation of the child's social-emotional problems reflects not only poor provider surveillance but poor communication of these problems as well.

Utilizing the ASQ:SE

The AAP (2005) recommends the use of a standardized screening tool to identify social-emotional problems for foster children. Several researchers utilized the ASQ:SE in their studies aimed at identifying social-emotional problems in youth who are at-risk for developing toxic stress (Brown et al., 2012; Fusco & Cahalane, 2013; Jee et al., 2010). All studies concluded that the use of the ASQ:SE was practical, useful, and reliable in determining social-emotional problems for young children, particularly in foster children aged 6 months to 5.5 years of age. Jee et al., (2010) found that using the ASQ:SE

increased the detection rate of social-emotional problems for children in foster care when compared to provider surveillance.

Conclusion

Findings from the research indicate that foster children are an at-risk population, primarily for toxic stress. There is a gap in the literature regarding clinical documentation of the social-emotional problems and the use of a standardized tool that can serve as a valid and reliable guide for comprehensively assessing social-emotional problems in foster children. Further research is needed to identify how best to implement consistent and accurate monitoring of foster children in the primary care setting with social-emotional problems as well as improve clinical documentation of such problems.

In most cases, foster children have been labeled as a vulnerable population compared to their peers who are not in the welfare system (Harvard University Center on the Developing Child, 2007). As the number of children entering foster care grows exponentially, so should proper surveillance of the foster child's adverse childhood experiences that may lead to the development of toxic stress. Consistent and standardized surveillance may imply the need for more evidence based research to support preceding studies.

Theoretical Framework

Kurt Lewin's Change Management theory (1951) was used as the theoretical framework to guide this DNP Scholarly Project. This theory entails a process leading to the successful assessment, planning, and implementation of change through driving forces. The process of assessing, planning, and applying change in Lewin's Change Management theory is formally identified as the three stages of unfreezing, moving

change, and refreezing (Sare & Ogilvie, 2010). Specifically to this project, Lewin's Change Management theory framed a strategic method of discovering, anticipating, and demonstrating an improved manner of how social-emotional problems are identified for foster children (Figure 1).

The first stage involved a state of unfreezing, which entails letting go of old habits (Petiprin, 2016). In this stage, the use of independent provider surveillance only to identify social-emotional problems was reviewed. The current practice has been limited by inadequate or lack of standardized documentation, no utilization of a standardized tool, and the absence of evidence based practice when identifying social-emotional problems in foster children. Demonstrating current practice habits related to clinical documentation of social-emotional problems allowed healthcare providers at the clinical site to acknowledge that change was necessary to improve documentation of social-emotional problems of foster children. Identifying these habits in the unfreezing stage of Lewin's Change Management theory not only helped providers visualize current practices, but also enabled motivation to improve universal standardization. Providers were made aware of current literature to support the use of a standardized tool to assess social-emotional problems for foster children, shown inconsistencies between the children's foster care status in the NexGen medical health records, and provided detailed suggestions to improve the communication of social-emotional problems via clinical documentation.

The second stage is the moving change which involves productive actions, feelings, and thoughts towards the change (Petiprin, 2016). Moving change for this project included utilizing provider surveillance along with a validated screening tool,

improving documentation of social-emotional problems, and adding awareness of evidence based practice to support the use of the ASQ:SE.

The third stage is the refreezing stage, where new habits are formed, and the practice then becomes standard (Petiprin, 2016). First and foremost, this stage relates to the current project as it outlined a process to assimilate ASQ:SE screening of all foster care children ages 0-5 years old for social-emotional problems into clinical practice. Secondly, the refreezing stage enabled the DNP Project Coordinator to utilize evidence based research to support consistent use of a validated tool to preliminarily identify social-emotional problems in foster children. The implementation of the refreezing stage framed a process to keep stakeholders accountable for capturing accurate and essential information from standardized screenings. Health care providers are encouraged to share the foster child's ASQ:SE results with the assigned social worker to apply an interprofessional approach in effectively monitoring the foster child's behavioral problems. Ongoing administration of the ASQ:SE and implementing the retrospective chart reviews may aid in the surveillance of social-emotional problems in foster children during early childhood.

Through driving forces, the application of Kurt Lewin's Change Management theory aided in outlining the project design of a practice improvement program. Lewin's Change Management theory was used as (a) a conceptual blueprint to show the driving forces that facilitate change at the clinical site, and (b) to motivate clinical practitioners to use an evidence based screening tool as a standard of practice in evaluating foster children ages 0 to 5 for social-emotional problems.

CHAPTER 3: PROJECT DESIGN

Methodology

The project design is descriptive-exploratory. A retrospective chart review of a convenience sample of ten foster children, from birth to 4 years of age, was completed at the clinical setting to examine documentation for social-emotional problems. The ASQ:SE was administered with the legal guardians of the same foster children. The project was implemented at the clinical site, Jacksonville Children's Multispecialty Clinic (JCMC). In an effort to indirectly engage with the 10 child participants, the DNP Project Coordinator had to directly engage with their assigned social workers at the Onslow County Department of Social Services (OCDSS), a local branch of the North Carolina Department of Social Services. The North Carolina Department of Social Services is a state funded agency that provides assistance, resources, and the protection of those who are victims of familial violence and ill-treatment (North Carolina Department of Human and Health Services, 2016). Written approval from the OCDSS Executive Director was required in order to engage with the assigned social workers and indirectly engage 10 of their foster children. The assigned social workers allotted time during their busy work schedules, around home visits, court appearances, and other social engagements. As their role in serving the community is essential, their time is limited in conducting activities that are not normally in their daily work schedules. There was no conflict of interest between the DNP Project Coordinator and the supporting agencies, JCMC and the OCDSS. Financial support was not provided from neither the publishers of the ASQ:SE, or the stakeholders involved in the foster child's care.

The action research design was implemented through a retrospective chart review and the administration of the ASQ:SE on each child participant with their assigned social worker. A term first used by Kurt Lewin in 1946, action research entails the concept of change and collaboration of health care interprofessionals to improve a process (Holly, 2014). This project is consistent with action research in that it entailed a thoughtful process for directly impacting practice and contained a sequence of data collection, reflection, and problem redefinition (Holly, 2014). Another key concept of the action research design is that it promotes the use of descriptive methods over numbers (Holly, 2014). This directly aligns with this DNP Scholarly Project as it is a descriptive exploratory study.

Population

A convenience sample of 10 child participants, aged 3 months to 4 years old, who were currently in out-of-home care and classified as a ward of the state of North Carolina, and their legal guardians, were recruited to participate in this project. There was never direct contact with the children, but the child's chart was reviewed and the assigned social workers were interviewed. Inclusion criteria were: boys and girls aged 0 to 5 years old, in foster care, English speaking child, and English speaking legal guardian. Exclusion criteria included: participants that were non-English speaking individuals and older than 5 years of age. The inclusion criteria of children aged 5 years old and under were selected because this age range is the largest age group in the United States welfare system (The AFCARS report, 2014).

Setting

The project took place at Jacksonville Children's Multispecialty Clinic (JCMC), which is a clinical setting in Southeastern North Carolina serving many foster children in Carteret and Onslow counties. Located in rural Onslow County, JCMC serves one of the largest pediatric foster care populations in the Lower Cape Fear region (National KIDS COUNT, 2013). Amongst foster children who are in the legal custody of the OCDSS, approximately 76 foster children sought primary care at JCMC in the past year.

Measurement Tools

Social-emotional problems were assessed using the 21 item Ages and Stages Questionnaire Social-Emotional tool. The ASQ:SE evaluates children in seven different behavioral development themes: self-regulation, compliance, communication, autonomy, adaptive, affect and interaction in children are the themes addressed in the ASQ:SE (Brown, Copeland, Sucharew, & Kahn, 2012). The ASQ:SE attempts to identify social-emotional delays based on age appropriate actions within each theme.

The ASQ:SE is a reliable and valid screening tool of social and behavioral competence which is targeted as a precursor to identify social-emotional problems for children who are at-risk for developing toxic stress under the age of 5 (Jee et al., 2010). The ASQ:SE psychometric properties were assessed over a period of 5 years for validity, reliability, and utility in a study screening 3,014 pre-school aged children with their guardians (Squires et al., 2001). Internal consistency of the ASQ:SE has been supported by Cronbach's alpha ranging from .67 to .91 (Squires et al., 2001). The test-retest reliability was 94% which suggests that scores were consistent over two week intervals (Squires et al., 2001). The standardized tool demonstrated an overall 93% in concurrent

validity amongst other measures with the results supporting the ASQ:SE tool being useful in identifying children with social-emotional problems or delays (Squires et al., 2009). The ASQ:SE had an overall sensitivity rate of 78% in identifying children with social-emotional problems, and an overall specificity rate of 95% in correctly identifying children without social-emotional delays. Out of the sample population (N=731), 97% of the legal guardians determined that the ASQ:SE tool was easy to complete, comprehend, and utilize (Squires et al., 2001).

The ASQ:SE can be utilized within a three month period for the ages of six through 30 month intervals or a six month period for the 36-60 month interval of the child's true age (Squires et al., 2009). In general, adjusted scores do not excuse the screened children from unanswered questions on the ASQ forms (Squires et al., 2009). An adjusted score was not necessary for the participants in this scholarly project as the project coordinator reviewed all questionnaires for missing data to ensure each social worker's response was answered in completion.

Prior to conducting the ASQ:SE, it is required to determine if the child being screened was born prematurely or before 40 weeks of gestation. If the child was born prematurely or before 40 weeks of gestation, the child's age must be adjusted with the ASQ Age Calculator to conduct the most age appropriate screening tool (Appendix B), thus preventing inaccurate results. If the child is screened utilizing the wrong age-appropriate screening tool, it is likely the child may incorrectly be identified as having positive social-emotional problems (Squires et al., 2009). Although the ASQ Age Calculator is currently indicated for the ASQ-3 and the ASQ:SE-2, it can be used to determine the child's age for the ASQ:SE with the ASQ:SE Age Administration Chart

(Squires et al., 2009). The ASQ:SE Age Administration Chart (Appendix C) is used with the ASQ Age Calculator because it helps to select the correct questionnaire based on the child's adjusted age according to month to month intervals (Squires et al., 2009).

Data Collection

In an effort to indirectly engage with the 10 child participants, the Project Coordinator had to receive written approval from the Executive Director of the OCDSS, a local branch of the North Carolina Department of Social Services. After receiving written approval from the Executive Director, the Project Coordinator directly contacted and recruited the assigned social workers of ten foster children that attended Jacksonville Children's Multispecialty Clinic.

The foster children were then selected by convenience sampling as chosen by their assigned legal guardian, a social worker who is assigned to Jacksonville Children's Multispecialty Clinic in Onslow County. Social workers that are assigned as the legal guardian of foster children in Onslow County are based on the practice in which the child seeks primary care and not by the demographic location or address of the child. As the legal guardian, the social workers assigned to the Jacksonville Children's Multispecialty Clinic, were contacted by the Project Coordinator by means of an electronic encounter, i.e. an email including the recruitment script. As employees of the state of North Carolina, the social worker's (legal guardian's) contact material was public information for the DNP Project Coordinator to obtain. Information was captured on each child that informed consent was provided from their legal guardian, the assigned social worker.

Following consent, the retrospective chart review was conducted to determine if: (a) the child was identified as a foster child in the electronic health record; (b) a

standardized screening tool, specific to social-emotional problems, had ever been conducted for the child participant; (c) the medical record contained historical data about the child's social-emotional problems; and (d) there were existing patterns of social-emotional problems in the sample of foster children noted (Figure 2). The findings from the retrospective chart review were recorded on a data collection sheet.

After the retrospective chart review, the DNP Project Coordinator administered the ASQ:SE (Appendix A) with the assigned social worker of the same foster children. The assigned social worker/ foster child's legal guardian was asked to answer behavioral development themed questions about the foster child using the ASQ:SE. After the child's adjusted age was calculated, reference was made to the Age Administration Chart, which was essential in identifying the correct ASQ:SE to address the most age appropriate questions about the child. When the assigned social worker confirmed that the child was not born prematurely, and born at term of 40 weeks of gestation, the ASQ Age Calculator and Age Administration Chart was omitted as no age adjustments were necessary.

Thereafter, 100 percent of the ASQ:SE were conducted by the DNP Project Coordinator with the child's assigned social worker during a telephonic encounter. None of the questions on the ASQ:SE were omitted. The assigned social worker was asked behavioral questions to determine if the foster child completed the stated action most of the time, sometime, never or rarely, and/or if the behavior was a concern in their perspective. Each response to the questions was scored with either 10 points for completing the action most of the time, 5 points for completing the action sometimes, or 0 points for never or rarely completes the action. If the child's response was of a concern to the assigned social worker then 5 points would be added to preceding 10, 5, or 0 point

results, respectively. Scores of 10 or higher were possible because of developmental delays and previously communicated behavioral problems. Following conclusion of the series of questions, the total scores from each page were documented on the evaluation page of the ASQ:SE. All questionnaires with the totaled scores were provided to the child's primary health care provider at JCMC. Once reviewed by the primary care provider, the ASQ:SEs were uploaded in the electronic health record to document the completion of the ASQ:SE with the assigned social worker of the foster child. The completion of each ASQ:SE questionnaire with the assigned social worker took approximately twenty minutes.

Project Analysis

Descriptive analyses were completed to address the objectives for this descriptive exploratory study. All data was entered into a table and analyzed in an Excel flow sheet.

CHAPTER 4: PROJECT FINDINGS

The sample for this project consisted of 10 boys and girls in the foster care system and their legal guardians. The children ranged in ages from 3 months to 4 years. The children had been placed in foster care and had experienced abuse, neglect, parental substance abuse, and other unknown adverse childhood experiences (Figure 3).

The first purpose of this DNP scholarly project was to assess the social-emotional problems of foster children, aged 0-5, using the ASQ:SE. Social-emotional problems using the seven behavioral themes of adaptive, affect, autonomy, communication, compliance, interaction and self-regulation were assessed for the 10 child participants based on the ASQ:SE and the findings are displayed in Table 1 (findings were grouped by 12 months increments to depict the growth and maturation milestones). The three most often identified themes were related to affect (9 children), self-regulation (8 children), and interaction (7 children). Approximately half of the children experienced problems related to adaptive, autonomy, communication, and compliance (see Figure 4).

The ASQ:SE is meant to capture a broad assessment of the pattern of the child's social-emotional development. As such, the child participant demonstrating the most social-emotional problems at each of the four age groups is depicted in Figure 5 (child participant 4, 7, 8, and 9) and the child demonstrating the least social-emotional problems at each group was depicted in Figure 6 (child participant 3, 6, 8, 10; note there was only one child in the 25-36 month age range). One potential trend in the data was that as children aged, the appropriateness of their affect improved, however, the appropriateness of their interactions worsened.

The second purpose was to determine if the ASQ:SE identified social-emotional problems versus the use of provider surveillance only in improving clinical documentation of such problems. All child participants were identified as a foster child both on their data face sheet before entering into their medical health records as well as within their charts under their demographic information. Chart review data is displayed in Table 2. Nine of the 10 children had a prior social-emotional history and at least one social-emotional concern documented in the medical health record (Figure 7). Existing patterns of the most common social-emotional problems discovered after analyzing the data from the retrospective chart review included unable to calm or relax (36%), minimal response to affection and/or withdrawal (29%), and behavioral problems (28%); some children exhibited more than one of these problems (Figure 8). No social-emotional problems were found for the remaining 7 percent of the child participants. Provider assessments of these problems were documented during the appointed office visit.

Discussion

The aim of this DNP Scholarly Project was two-fold (a) to assess the social-emotional problems of foster children aged 0-5 using the ASQ:SE, and (b) to determine if administration of the ASQ:SE will identify social-emotional problems and improve clinical documentation versus use of provider surveillance only. Both provider surveillance and administration of the ASQ:SE detected social-emotional problems in foster children aged 0-5 years. However, use of the standardized ASQ:SE detected more consistent behaviors across adaptive, affect, autonomy, communication, compliance, interaction and self-regulation themes than provider surveillance only. As such, use of the

ASQ:SE offers a more reliable way of assessing and communicating social-emotional problems in foster children age 5 and younger.

The child participants presented an array of social-emotional behaviors that put them at-risk for developing toxic stress. The most common behaviors were across the affect, self-regulation, and interaction ASQ:SE themes. While most child participants demonstrated at least one social-emotional problem, some exhibited numerous social-emotional problems across different ASQ:SE themes. Child participants who exhibited more than one social-emotional problem are at a greater risk of developing toxic stress.

Consistent with evidence based research, foster children who are at-risk for developing toxic stress as a result of ACEs is a growing population. As the number of children placed in foster care increases, so does the need for improved detection of social-emotional problems. In the retrospective chart review portion of this project, health providers noted a number of social-emotional problems. Behavioral problems, withdrawal/minimal response to affection, and unable to calm or relax were the most common. Although patterns of being unable to calm or relax and withdrawal varied, the prevalence of behavioral problems increased with the child participant's age.

The ASQ:SE captured a multi-dimensional assessment of the pattern of the child's social-emotional development and identified distinct behaviors that were inconsistent with normal social-emotional responses for all child participants. Overall, the results are consistent with research by Brown et al., (2012), Fusco and Cahalane, (2013), and Jee et al., (2010) that noted that the ASQ:SE is a practical and reliable means of determining social-emotional problems for young foster children who are at-risk for developing toxic stress.

Clinical documentation of social-emotional problems improved with use of the ASQ:SE over provider surveillance only. While provider surveillance did note the occurrence of several different social-emotional problems with most of the children, there was generally only one type of behavior documented by the providers. Use of the standardized tool presented a more accurate and complete assessment of the social-emotional problems in the foster children. Without the use of a reliable and valid screening tool, specifically designed to identify social-emotional problems, foster children may not be identified or ill-identified as having any behavioral problems. Findings from this project support the National AAP recommendation of implementation of a standardized tool to screen for developmental and mental health problems in foster children.

CHAPTER 5: IMPLICATIONS

Findings from this project have implications for practice with foster children. The systematic use of the standardized ASQ:SE increases the detection of social-emotional problems in foster children under the age of 5 years. Administration of the ASQ:SE took approximately 20 minutes and can easily be incorporated into the initial healthcare provider's assessment of foster children. Moreover, early detection of social-emotional problems allows the health care provider to assist in early intervention services to prevent the development of toxic stress in foster children.

There are also implications for future research. First, it would benefit future studies to include a larger sample of subjects to provide additional evidence for use of the ASQ:SE as a screening tool for social-emotional problems. A broader sample based on gender, age, ethnicity, and other demographics is needed. Although it was not a focus of this project, future studies could seek to determine how effective the standardized screening tool is on care, such as use of the tool in monitoring behavioral problems and following referrals to other providers over time. Future clinical questions that could be addressed are (a) does documenting social-emotional problems with a standardized tool impact the number of referrals to other providers, including mental health providers; (b) are foster children's risk of developing toxic stress better communicated amongst the multidisciplinary team with use of a standardized tool; and (c) in foster children, will the detection rate of social-emotional problems increase if the ASQ:SE is used concomitantly with provider's surveillance in clinical practice.

Summary

Both provider surveillance and administration of the ASQ:SE detected social-emotional problems in foster children younger than 5 years of age. However, use of the standardized ASQ:SE detected more consistent social-emotional behaviors in younger children than provider surveillance only, thus reducing the risk of developing toxic stress. As such, use of the ASQ:SE offers a more reliable way of assessing and communicating social-emotional problems in foster children aged 5 and younger.

Recommendations

In primary care, documentation can be one of the most fundamental forms of communicating when an action was completed by health care personnel. Standardized tools are commonly used in clinical practice to evaluate developmental problems in early childhood, however, there is a gap in literature regarding how common standardized tools are used in clinical practice to document and evaluate behavioral problems in early childhood. As foster children are significantly at-risk for developing toxic stress, a reliable comprehensive tool should be used to identify behavioral problems related to their adverse childhood experiences.

Health care professionals play a pivotal role in better assessing foster children for social-emotional problems and intervening before the development of toxic stress. Some providers may question the amount of time that it takes to complete a comprehensive screening tool for at-risk populations such as foster children. Suggestions may include (a) provide the assigned and/or legal guardian of a foster child with the comprehensive screening tool while they are awaiting service at the point-of-service with the child's provider; (b) designate a specific clinic day to engage at-risk children, therefore more

time is allotted to evaluate the findings of the questionnaires; and (c) designate a private or contracted liaison, such as a certified case manager, to administer the screening tool with the assigned and/or legal guardian on the health provider's behalf. There are ways to improve communication and service coordination while reducing the development of toxic stress in at-risk children in foster care.

References

Adoption and Foster Care Analysis and Reporting System. (2014). The AFCARS report. US Department of Health and Human Services

Brown, C. M., Copeland, K. A., Sucharew, H. P., & Kahn, R. S. (2012). Social-emotional problems in preschool-aged children. Arch Pediatric Adolescent Medical, 166(10), 926- 932

Felitti, V., Anda, R., Nordenberg, D. W., Spitz, A., Edwards, V. K., & Marks, R. (1998). The Adverse Childhood Experiences (ACE) Study. *The American Journal of Preventative Medicine*, 245-258

Fusco, R. A., & Cahalane, H. (2013). Developmental and social-emotional screening in child welfare: implications for young children in rural settings. *Journal of Public Child Welfare*, 154-171

Harvard University Center on the Developing Child. (2007). InBrief: the impact of early Aaversity on children's development. Retrieved from Center on the Developing Child: http://developingchild.harvard.edu/resources/inbrief-the-impact-of-early-adversity-on-childrens-development/

Holly, C. (2014). *Scholarly inquiry and the dnp capstone.* New York, NY: Springer.

Jacobsen, H., Moe, V., Ivarson, T., Wentzel-Larsen, T., & Smith, L. (2013). Cognitive development and social-emotional functioning in young foster children: a follow-up study from 2 to 3 years of age. Child Psychiatry Human Development, 44, 665-677

Jee, S. H., Conn, A-M., Szilagyi, P. G., Blumkin, A., Baldwin, C. D., & Szilagyi, M. A. (2010). Identification of social-emotional problems among young children in foster care. The Journal of Child Psychology and Psychiatry, 1351-1358

National KIDS COUNT. (2013). Kids Count Data Center: Children in Foster Care. Annie E. Casey Foundation

North Carolina Department of Human and Health Services (2016, February 15). *Social Services*. Retrieved from North Carolina Department of Human and Health Services : https://www.ncdhhs.gov/divisions/dss

Petiprin, A. (2016, June 1). Kurt Lewin-Nursing Theorist. Retrieved from Nursing Theory: http://nursing-theory.org/nursing-theorists/Kurt-Lewin.php

Sare, M. V., & Ogilvie, L. (2010). Strategic Planning for Nurses: Change Management in Health Care. Sudbury, MA: Jones and Bartlett.

Schilling, S., Fortin, K., & Forkey, H. (2015). Medical management and trauma-informed care for children in foster care. Current Problems in Pediatric and Adolescent Health Care, 298-305

Scribano, P. V. (2015). Charting the course of improved health for children in foster care. Current Problems in Pediatric and Adolescent Health Care, 282-285

Squires, J., Bricker, D., Twombly, E., Yockelson, S., Davis, M. S., & Kim, Y. (2001). *Overview of the ASQ:SE.* Retrieved April 6, 2016, from http://archive.brookespublishing.com/documents/asq-se-overview.pdf

Squires, J., Bricker, D., Twombly, E., Yockelson, S., Davis, M. S., & Kim, Y. (2009). *Ages and Stages Questionnaires.* Retrieved October 3, 2015, from what is ASQ:SE: http://asqoregon.com/whatisasqse.php?lang=en

Szczepaniak, D. M., McHenry, M. S., Nutakki, K. M., Bauer, N. S., & Downs, S. M. (2013). The prevalence of at-risk development in children 30 to 60 months old presenting with disruptive behaviors. Clinical Practice, 52(10), 942-949

Taylor, A., Swann, R., & Warren, F. (2008). Foster carers' beliefs regarding the causes of foster children's emotional and behavioural difficulties. Adoption & Fostering, 32(1), 6-9

The American Academy of Pediatrics. (2005). Healthy Foster Care America. Retrieved from Fostering Health: https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/healthy-fostercareamerica/Documents/FosteringHealthBook.pdf

Table 1

Actual Data of 10 Child Participants for the 7 Themes of the Ages and Stages Questionnaire: Social Emotional

Range of Ages in months	**Adaptive**	**Affect**	**Autonomy**	**Communication**	**Compliance**	**Interaction**	**Self-Regulation**
Birth-12 months (4 kids)	1:0 2:0 3:0 4:10	1:15 2:15 3: 5 4:20	1:15 2:0 3:0 4:25	1:5 2:0 3:0 4:20	1:5 2:0 3:0 4:15	1:0 2:0 3:0 4:15	1:10 2:5 3:0 4:10
13 months-24 months (3 kids)	5:10 6:0 7:5	5:15 6:0 7:25	5:5 6:0 7:10	5:5 6:0 7:5	5:5 6:0 7:10	5:5 6:5 7:15	5:5 6:5 7:15
25 months-36 months (1 kid)	8:0	8:20	8:0	8:0	8:10	8:10	8:10
37 months-48 months (2 kids)	9:5 10:5	9:5 10:10	9:0 10:0	9:20 10:0	9:10 10:0	9:45 10:15	9:20 10:0

Note. First number represents child ID and second number represents score on ASQ:SE.

Table 2

Retrospective Chart Review Findings for 10 Child Participants

Range of Ages in months	Gender Boys & Girls	Identified As a Foster Child in Clinical Documentation	Prior History of S-E Problems Documented in Medical Health Record	ASQ:SE or Other S-E Screening Tool Used	Patterns of S-E Problems As Identified by Retrospective Chart Review
Birth-12 months	Boys: 3 Girls: 1	Yes	Yes	No	Withdrawal, UTCR*
13 months-24 months	Boys: 1 Girls: 2	Yes	2-Yes 1-None	No	Withdrawal, BP*
25 months-36 months	Girls: 1	Yes	Yes	No	UTCR*, BP* Related to Developmental Delay
37 months-48 months	Girls: 2	Yes	Yes	No	BP*

Note. S-E- Social-Emotional; UTCR-Unable to Calm or Relax; BP- Behavior Problems

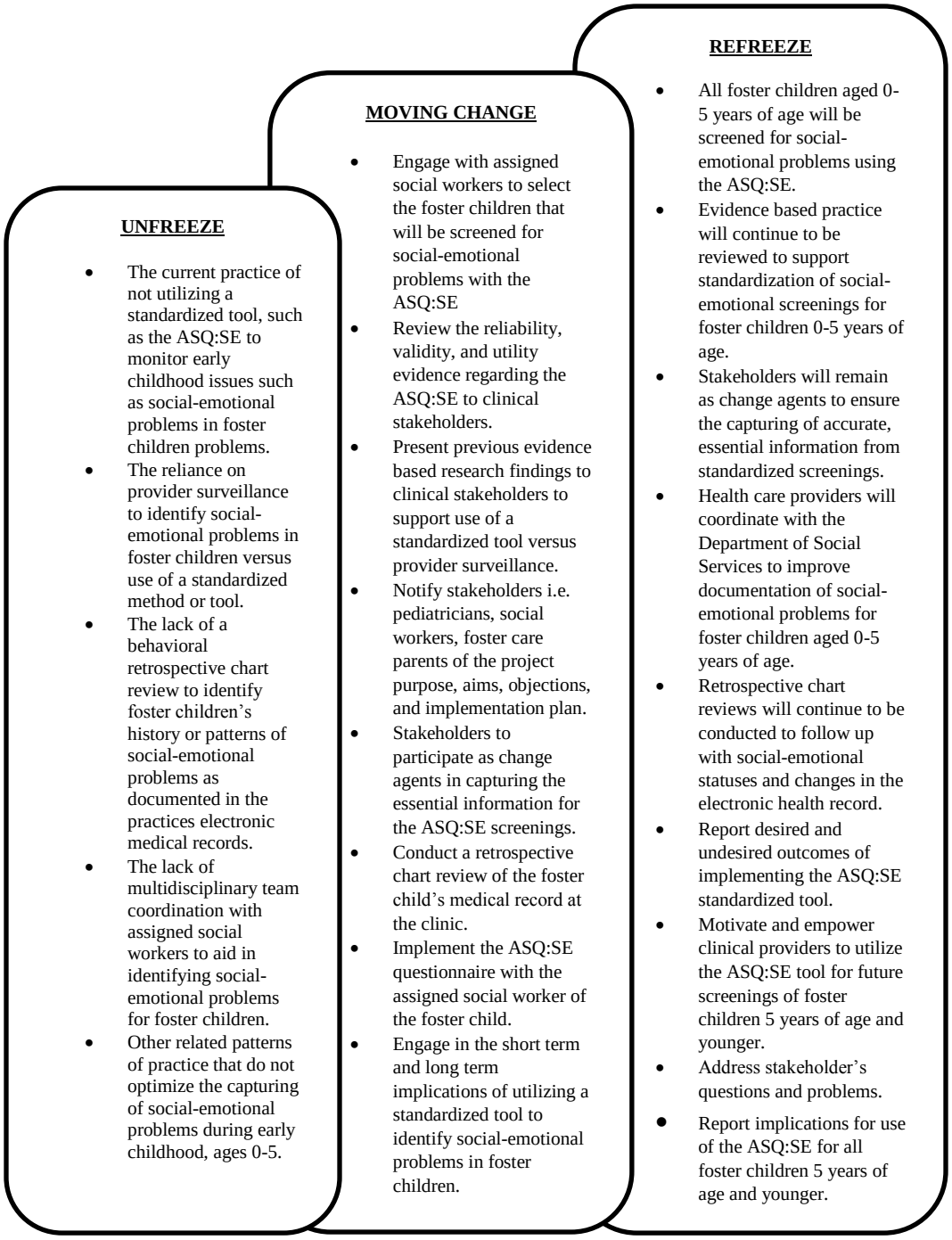


Figure 1. Lewin's Change Management theory for implementing the ASQ:SE into clinical practice.

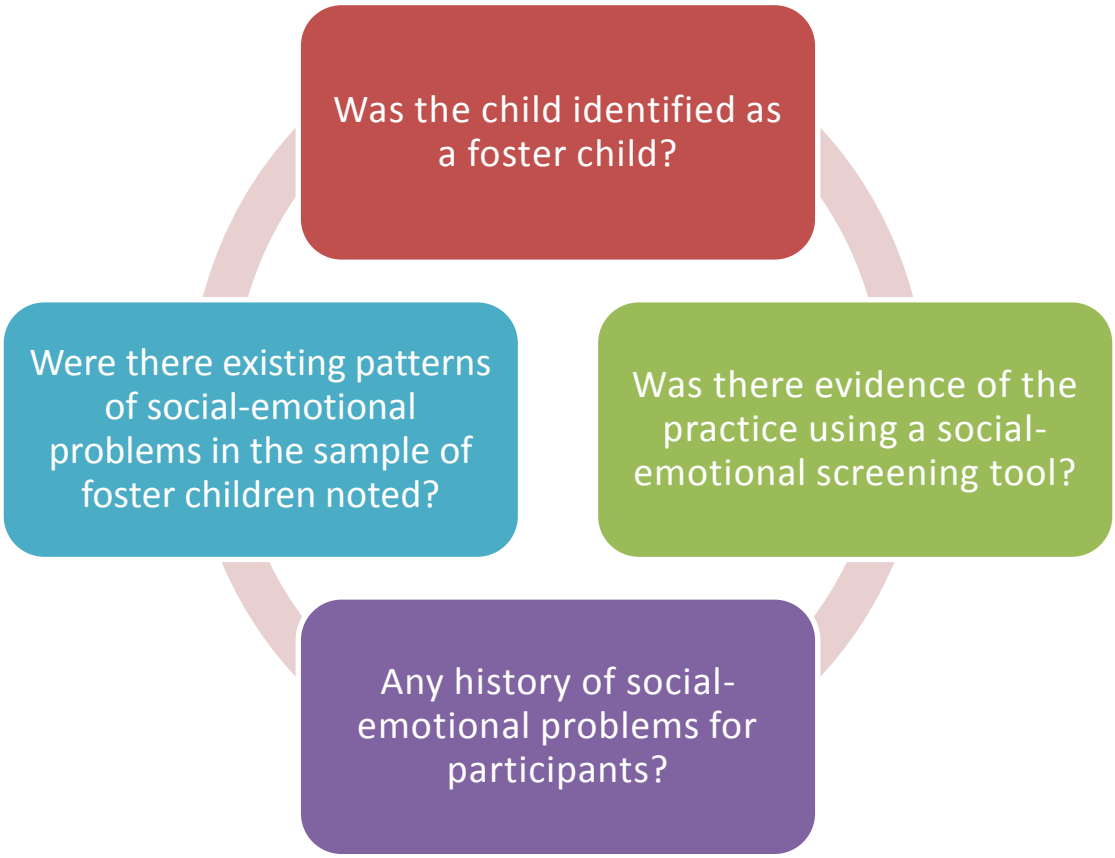


Figure 2. Retrospective chart review identification process.

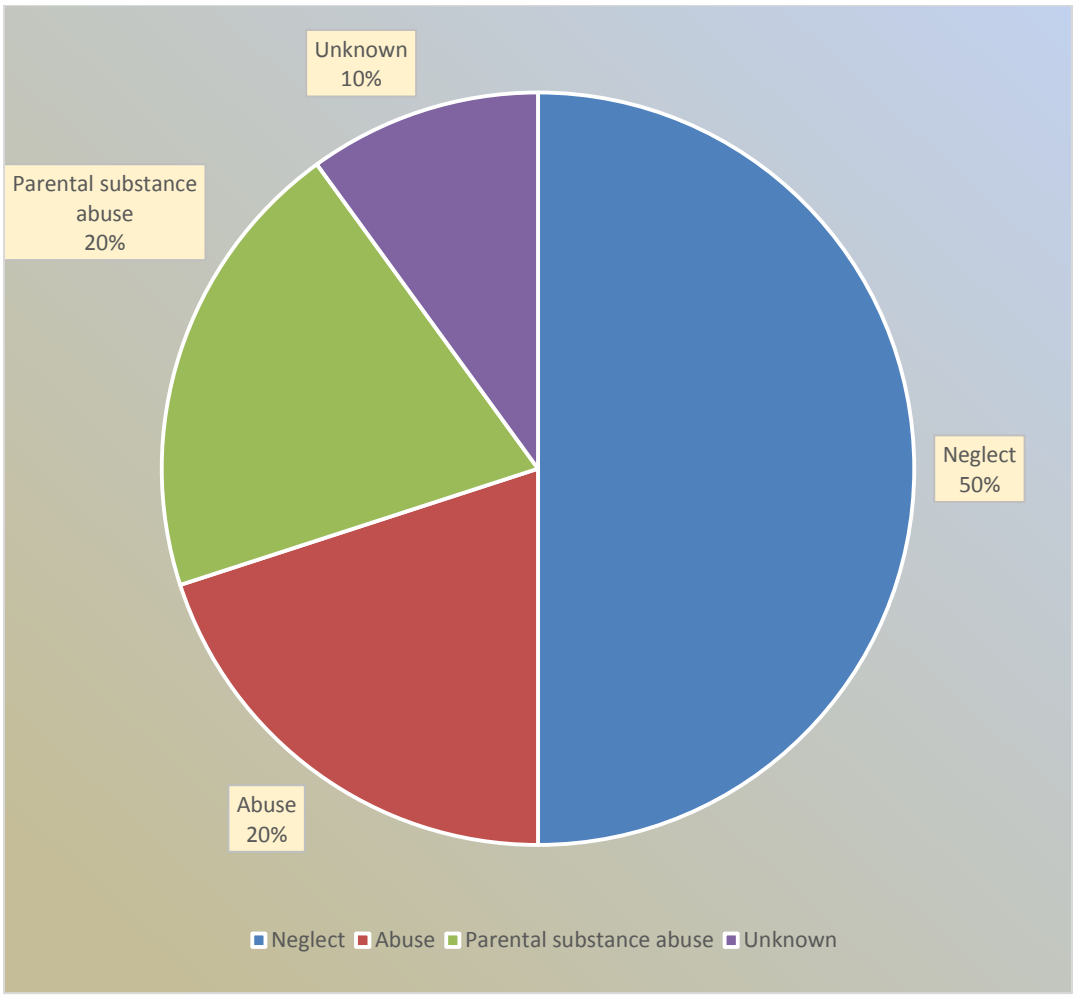


Figure 3. Adverse Childhood Experiences leading to foster care placement.

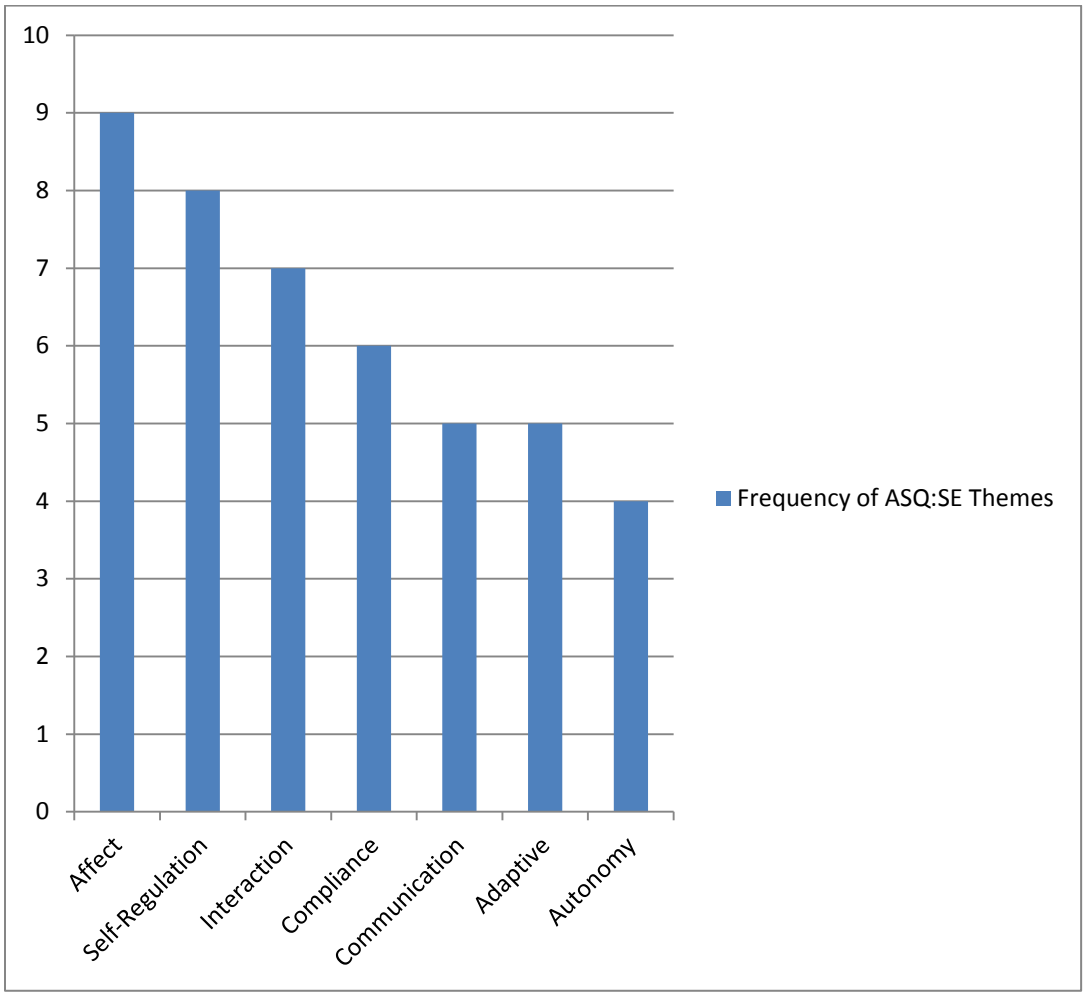


Figure 4. Frequency of themes in children aged 3 months to 4 years.

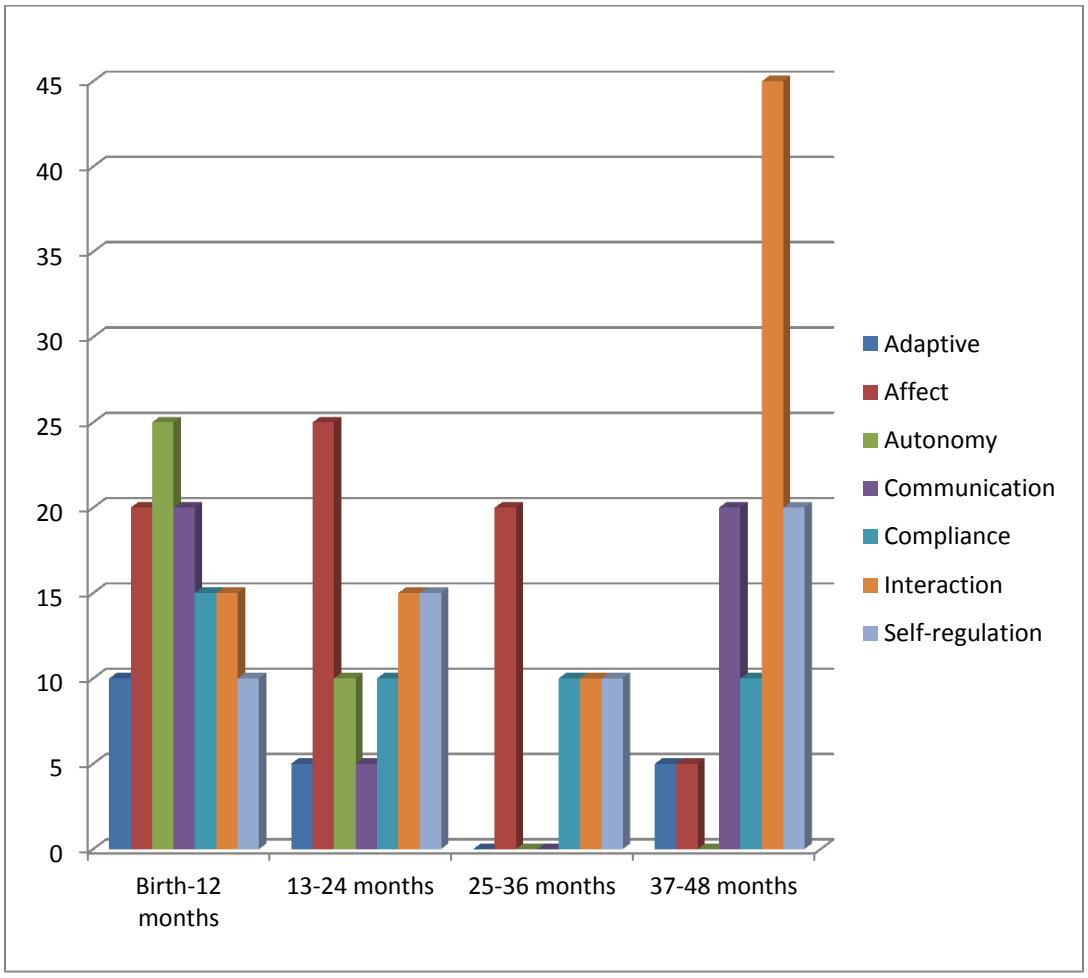


Figure 5. Example of a pattern for one child experiencing the most social-emotional problem at each age group.

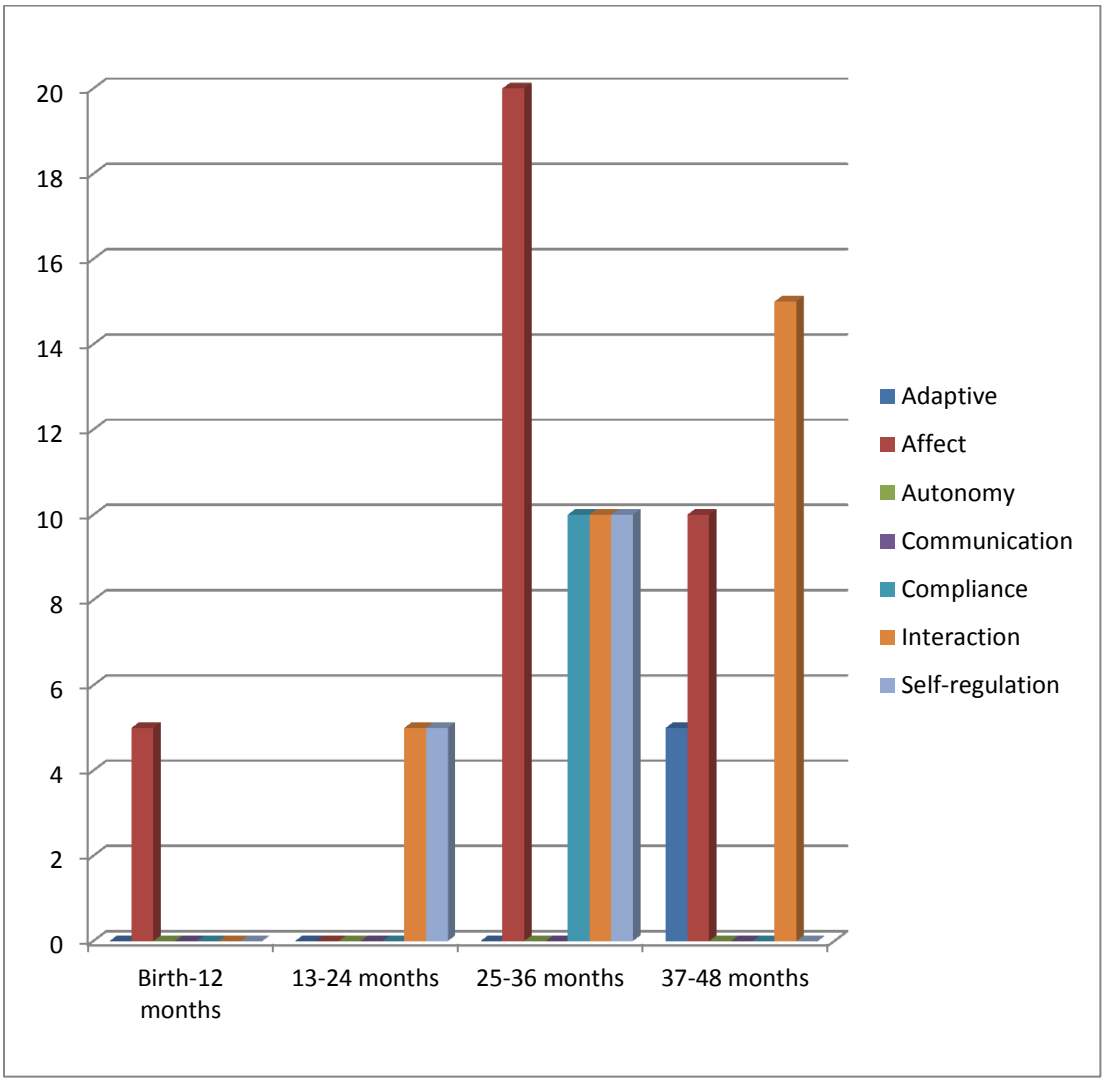


Figure 6. Example of a pattern for one child experiencing the least social-emotional problem at each age group.

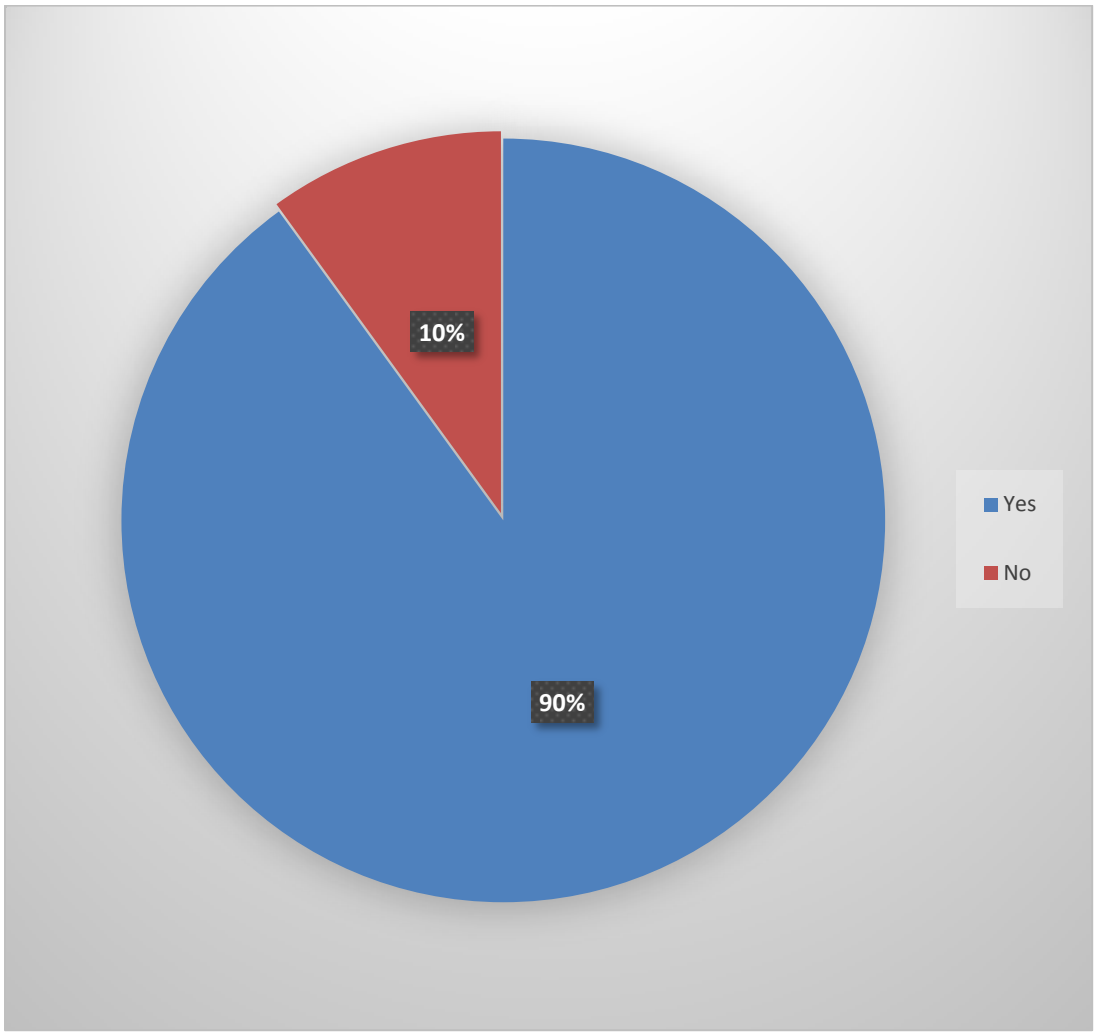


Figure 7. Percentage of the 10 child participants with social-emotional problems found by the Ages and Stages Questionnaire: Social-Emotional.

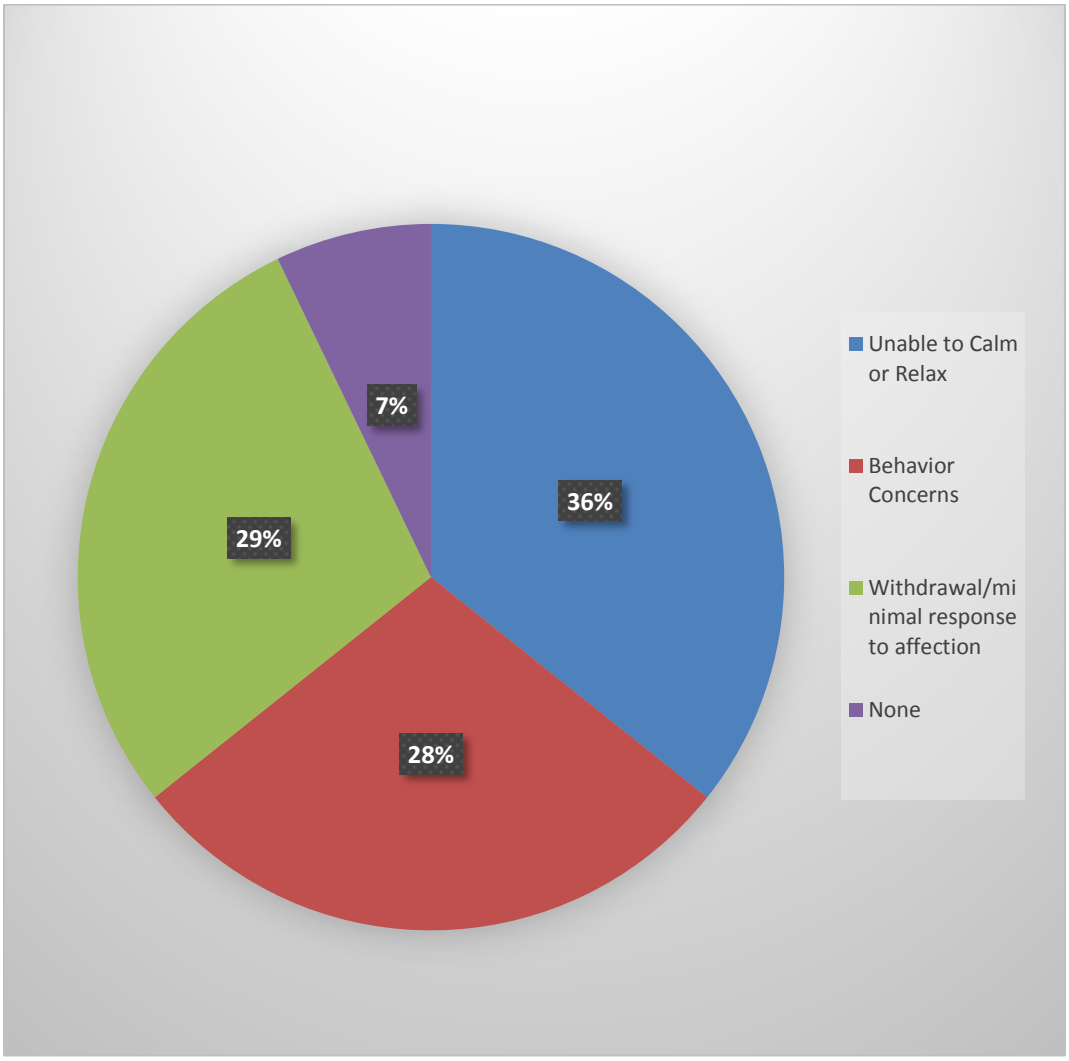


Figure 8. Common social-emotional problems found in retrospective chart review.

Appendix A the ASQ:SE

Ages & Stages Questionnaires®: Social-Emotional
A Parent-Completed, Child-Monitoring System for Social-Emotional Behaviors
By **Jane Squires, Diane Bricker, & Elizabeth Twombly**
with assistance from **Suzanne Yockelson, Maura Schoen Davis, & Younghee Kim**

ASQ:SE™

48 Month/4 Year Questionnaire

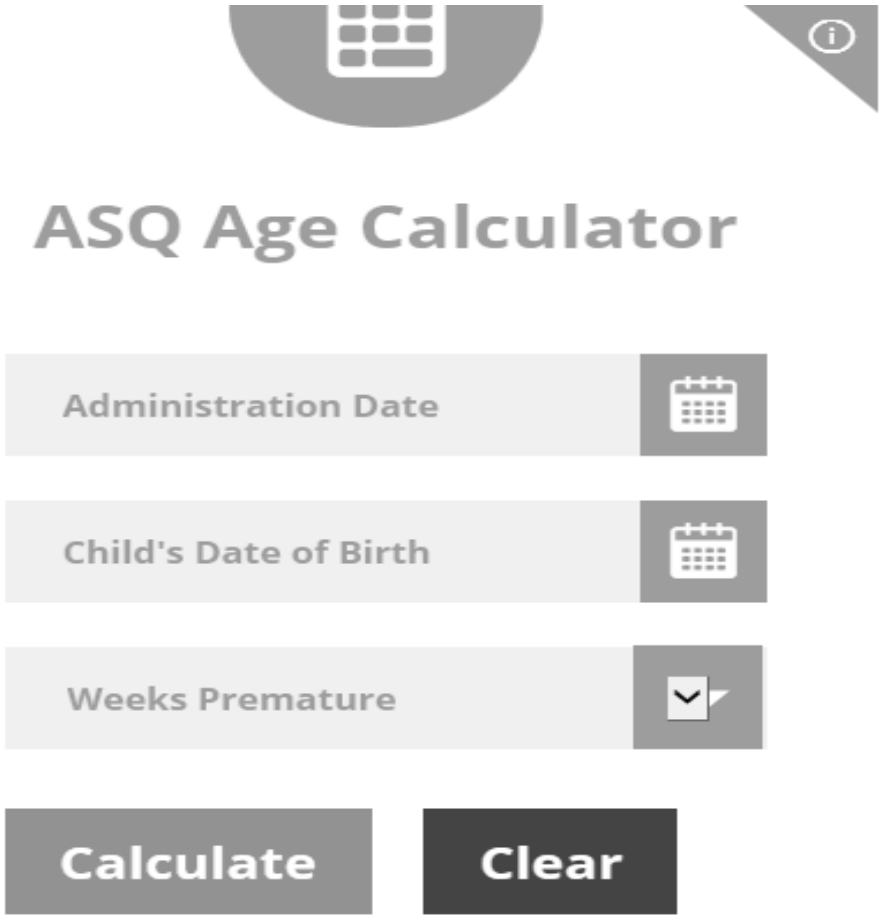
(For children ages 42 through 53 months)

Important Points to Remember:

- ☑ Please return this questionnaire by 5/15/09.
- ☑ If you have any questions or concerns about your child or about this questionnaire, please call: Anytown Preschool.
- ☑ Thank you and please look forward to filling out another ASQ:SE questionnaire in 12 months.

ASQ:SE™

Appendix B the ASQ Age Calculator



Appendix C the ASQ:SE Age Administration Chart

Age Administration Chart (for ASQ:SE, 1st edition).

Child's Age	Use this ASQ:SE
3 months, 0 days, ***through*** 8 months, 29 days	6 month
9 months, 0 days ***through*** 14 months, 29 days	12 month
15 months, 0 days ***through*** 20 months, 29 days	18 month
21 months, 0 days ***through*** 26 months, 29 days	24 month
27 months, 0 days ***through*** 32 months, 29 days	30 month
33 months, 0 days ***through*** 41 months, 29 days	36 month
42 months, 0 days ***through*** 53 months, 29 days	48 month
54 months, 0 days ***through*** 65 months, 29 days	60 month