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Mental Health Screening in Child Care: Impact of a Statewide Training Session

Mary Margaret Gleason
Tulane University School of Medicine, Department of Psychiatry and Behavioral Sciences and Department of Pediatrics

Sherryl Scott Heller, Geoffrey A. Nagle, Allison Boothe, Angela Keyes
Tulane University School of Medicine, Department of Psychiatry and Behavioral Sciences

Janet Rice
Tulane University School of Public Health and Tropical Medicine

Abstract

Child care settings may provide an optimal setting for identification of early childhood mental health problems. However, little is known about child care providers' attitudes or knowledge about screening for children's mental health problems. Both attitudes and perceived knowledge could affect the successful implementation of mental health screening in child care settings. This report discusses two related pilot studies. In the first, the authors adapted an existing measure to assess child care providers' attitudes and knowledge about mental health screening, and they examined the factors of the new measure in 275 child care professionals. In the second study, the authors examined 203 child care providers' attitudes toward and perceived knowledge about mental health screening before and after a single 3-hour training session. Study 1 factor analysis revealed two factors: attitude about screening and perceived knowledge about screening. Both factors were associated with experience with a mental health consultant and with comfort with children with special needs. Participants in Study 2 demonstrated significant increases in positive attitude and perceived knowledge about mental health screening in child care following the 3-hour training session. Results indicate that child care providers were positively inclined toward participating in mental health screening. Attitudes toward and perceived knowledge of mental health screening increased after a single training session. Findings of this research provide a first step toward understanding child care providers' attitudes about and perceived knowledge of mental health screening in very young children and indicate that both positive attitudes and perceived knowledge can be increased through training.

Introduction

Prejudice about and discrimination against people with mental health problems are pervasive throughout Western society. Misunderstandings about young children's mental health in particular may serve as a barrier to early detection and treatment of children with mental health problems.

Importance of Early Screening

Early childhood mental health problems, which can include anxiety disorder, depression, attention deficit hyperactivity disorder, and oppositional defiant disorder, occur at rates of about 10% nationally and are associated with long-term emotional, academic, and relationship problems (Briggs-Gowan & Carter, 2008; Briggs-Gowan, Carter, Bosson-Heenan, Guyer, & Horwitz, 2006; Eggers & Angold, 2006; Lahey et al., 2004; Lavigne et al., 1998). These early childhood mental health problems are not "phases"; they are predictive of mental health problems in school-age children (Briggs-Gowan, 2005; Lahey et al., 2004; Luby, Si, Belden, Tandon, & Spitznagel, 2009). Fortunately, research indicates that intervention is effective and can produce lasting positive effects (Hood & Eyberg, 2003; Lieberman, Ghosh Ippen, & Van Horn, 2006; Olds et al., 1997; Schweinhart & Weikart, 1998; Webster-Stratton, Reid, & Hammond, 2004); however, some studies suggest that only about 8% of children in need of mental health services receive any treatment (Horwitz, Gary, Briggs-Gowen, & Carter, 2008; Costello, Messer, Bird, Cohen, & Reinherz, 1998). The first step toward intervention is identification; early identification has been shown to be feasible and can facilitate intervention (Briggs-Gowan & Carter, 2008; Meagher, Arnold, Doctoroff, Dobbs, & Fisher, 2009). Specialists in multiple disciplines advocate for screening and treatment of mental health problems in very young children (American Academy of Pediatrics Committee on Children with Disabilities, 2001; Jellinek, Patel, & Froehle, 1998; U.S. Public Health Service, 2000).

Social–Emotional Screening in Child Care Settings

Some early childhood experts have called for universal mental health screening in child care settings to increase early identification and enhance treatment outcomes (Bricker, Davis, & Squires, 2004; Carter, Briggs-Gowan, & Davis, 2004; Gleason, Zeanah, & Dickstein, 2010; U.S. Department of Health and Human Services, 1999; U.S. Public Health Service, 2000). Mental health screening has been shown to be both feasible and effective in Head Start centers (Miller et al., 2003). Screening in the child care center is seen as providing a number of advantages over other screening settings. The majority of children in the United States attend child care; in 2008, it was estimated that 51% of preschoolers and 30% of infants and toddlers were in child care (U.S. Census Bureau, 2008). Children spend extensive time in child care—infants average 29 hours a week, and by age 3, children average 34.4 hours a week (NICHD Early Child Care Research Network, 2005). A child care provider is thus able to observe a child's typical behavior over time in a setting that is comfortable for and familiar to the child.

Most parents view their children's child care providers as trustworthy and knowledgeable about child development, increasing the likelihood that they would be comfortable with the practice of mental health screening in child care settings. Having both child care providers and parents report their observations about a child can contribute to the richness of information (Carter, Briggs-Gowan, & Davis, 2004) and can eliminate potential bias of a single informant (Briggs-Gowan, Carter, & Schwab-Stone, 1996; Richters, 1992; Fergusson, Horwood, & Lynskey, 1995). It is possible that early identification of (and intervention with) children who are at risk of mental health disorders may reduce the risk of preschool expulsion for behavior problems, which occurs at rates higher than in the K-12 population (Gilliam, 2005).

Provider Characteristics and Attitudes toward Mental Health Problems

Little research exists on public attitudes toward or knowledge of children's mental health (Pescosolido, 2007). An exception is the National Stigma Study–Children (NSS–C), in which nearly 1,400 randomly selected adults, with race, gender, and socioeconomic distribution mirroring the U.S. population, were interviewed about their attitudes toward children with mental health problems. Findings from the NSS–C indicate that U.S. adults' attitudes and perceptions about children's mental health are complex and cannot be inferred from research findings regarding beliefs about adult mental illness nor predicted by sociodemographic characteristics, such as socioeconomic status, ethnicity, education level, and gender (McLeod, Fettes, Jensen, Pescosolido, & Martin, 2007; Perry, Pescosolido, Martin, McLeod, & Jensen, 2007; Pescosolido, 2007; Pescosolido, Perry, Martin, McLeod, & Jensen, 2007). One study (McLennan, Jansen-McWilliams, Comer, Gardner, & Kelleher, 1999) suggested that female medical providers and medical providers who have more recent training on mental health conditions are more open to working with children with mental health issues than other providers.

Although few studies have examined the attitudes and beliefs of child care providers and teachers about young children's mental health, the general consensus seems to be that personnel in early care and education settings should be involved in addressing the mental health of children. However, research suggests that a minority of providers and teachers feel they have the skills to support these needs (Reinke, Stormont, Herman, Puri, & Goel, 2011).

Training Child Care Providers

The limited information available about child care providers' training in mental health or mental health screening indicates that education on these topics is not only needed but would be well received. Child care providers report that working with children with severe behavioral disorders is as challenging as working with those with severe physical disabilities (Buysse, Wesley, Keyes, & Bailey, 1996); in fact, research suggests that child care providers rank training in mental health issues as a priority (Fuchs, Monson, & Hatcher, 2010; Buck & Ambrosino, 2004; Reinke et al., 2011). Reviews of early childhood education curricula conducted by faculty, students, and outside reviewers, however, reveal limited training about children's behavioral problems (Ackerman, 2005; Hemmeter, Corso, & Cheatham, 2006; Reinke et al., 2011).

Research shows that child care providers identify ongoing inservice training as a way to increase their comfort in working with children with disabilities and that they respond positively to structured curricula, training workshops, and handouts that can be taken home for later reference (Fukkink & Lont, 2007; Hadadian, Tomlin, & Sherwood-Puzzello, 2005). Content on early childhood mental health can be provided through such training methods, targeting attitudes and common misconceptions about mental health in early childhood. Commonly held misconceptions include that the child's behavior is "only a phase," that preschoolers are too young to have emotional problems, that nothing can be done to help these children, or that an early diagnosis of mental health problems will need to be included in all future documents about a child, continuing to affect professionals' perceptions of the child.

Positive changes in knowledge and attitudes have been demonstrated after training about children with special needs (Mulvihill, Schearer, & Van Horn, 2002). It seems reasonable to expect similar effects from training on mental health.

Purpose of the Research

In summary, early childhood mental health problems occur in 10% of the national population; however, the majority of these young children are not being identified—much less treated. Developmental screening in early childhood settings has been demonstrated to be feasible and effective; in fact, child care settings may be ideal locations to conduct screenings for young children's mental health issues. In addition, research has demonstrated that child care providers are not only open to training on early childhood mental health but also identify it as a priority.

Extrapolating from the research on training with teachers (on education and special needs) and medical providers (on mental health conditions), we hypothesize that training on mental health screening would have a positive impact on child care provider attitudes. Understanding caregiver attitudes about screening is important for those involved in designing and implementing effective training modules for child care providers and in developing classroom strategies to support healthy social-emotional development in all children. To be successful, training about young children's mental health must address mental-health-related stigma and common misconceptions about screening. Training caregivers to implement mental health screening can also address mistaken beliefs and highlight the role of the child care provider in protecting children from such potentially harmful misattributions.

In Study 1, we examined a new child care provider-focused measure of attitudes and knowledge about early childhood mental health and screening—the Screening Belief Scale (SBS), which is described below. We sought to confirm the underlying factors in the measure in this population and to examine whether providers' background characteristics related to responses on the measure. In Study 2, we examined changes in responses to the measure after a brief training session focused on early childhood mental health and screening. Finally, we sought to identify characteristics of child care providers related to changes after training.

Research Questions

Study 1 addressed the following research questions:

- Do child care providers' responses to the Screening Belief Scale (SBS), a modified version of the Physician Belief Scale (PBS; Ashworth, Williamson, & Montano, 1984), yield definable factors?
- Are specific child care provider background characteristics (e.g., demographic characteristics, reported comfort with children with mental health problems) associated with SBS constructs?

Study 2 addressed the following research questions:

- Do constructs assessed by the SBS change after a 3-hour training session on early childhood mental health and screening?
- Are specific child care provider background characteristics (e.g., demographic characteristics, reported comfort with children with mental health problems) associated with changes in their SBS factor(s) following training?

Methods

Training

As part of a larger state effort to build and sustain high-quality child care in conjunction with the implementation of the state's child care rating system, child care providers participated in a voluntary 3-hour training session focused on mental health screening in child care. This structured training focused on the concepts and strategies for mental health screening in child care settings and included a comprehensive handout summarizing the presented material.

The institutional review board at Tulane University School of Medicine approved the evaluation of the project. Twelve mental health professionals were trained by three doctoral-level psychologists to deliver the training session. The 3-hour training sessions included such topics as rationale for mental health screening in young children, considerations about informal identification strategies, a review of sample screening measures, and a step-by-step approach for initiating a screening program in a child care setting with attention to the process of providing feedback to families. The training also highlighted the importance of partnering with families, discussed developing community partnerships, and emphasized that screening results are not diagnostic.

Each trainer provided up to six training sessions in 2008-2009. All participants completed a background questionnaire and a survey focused on attitudes and knowledge prior to and after the training session.

Participants

Child care providers attended training on children's social-emotional development as part of the state's quality rating and improvement system. During the study period, 821 child care teachers, directors, and regional technical assistance agents who were attending a single training session on children's social-emotional issues and development were invited to participate in the assessment. Study 1 participants were drawn from the 361 attendees at the first two social-emotional training sessions offered. Of these attendees, 275 completed every item of both the pre- and post-training attitude questionnaire. Study 2 included participants from the subsequent single training session. Of the 460 providers who attended the training sessions, 203 completed all items on both questionnaires. The post-test was administered immediately after the training session ended. See Table 1 for more details on background characteristics.

Table 1
Background Characteristics of Participants

	Study 1 $N = 275$	Study 2 $N = 203$
Ethnicity*		

*$p < 0.01$.

African American	35%	60%
Caucasian	52%	37%
Other (Native American, Hispanic, Native Hawaiian, Asian)	7%	2.5%
Education level		
High school or less	40%	30%
Certification or some college	30%	34%
College degree or higher	28%	36%
Years in child care mean (*SD,* range)	8 years (8.2, 0-40)	9 years (8.6, 0-45)
Child care position		
Assistant teacher	37%	26%
Lead teacher	43%	39%
Director/owner	18%	15%
R&R staff	1%	1%
Other	0%	18%
Experience with MHC	47%	47%
Number children expelled mean (*SD,* range)	1.0 (4.0, 0-10)	0.5 (1.3, 0-40)
Comfort with developmental disability mean (*SD*)	4.8 (1.4)	4.7 (1.5)
Comfort with emotional problems mean (SD)	4.3 (1.5)	4.3 (1.5)
Comfort with behavioral problems mean (SD)	4.1 (1.5)	4.1 (1.5)

*$p < 0.01$.

The only demographic factor that differentiated the individuals who participated at both time periods (*n* = 478) from those who completed only the pre-assessment (*n* = 343) was ethnicity. Caucasian child care providers were more likely to complete both questionnaires than African American child care providers (x^2(3) = 25.3, *p* < 0.001). No significant differences were found between the two study groups in terms of years in child care, education (certification beyond high school or not), or current role (supervisor in child care vs. teacher and assistant teacher). Study 2 included a higher proportion of African American participants than Study 1 (x^2(6) = 38, *p* < 0.01).

Measures

Demographic Questionnaire. All participants completed an anonymous demographic questionnaire. This 6-item questionnaire inquired about their role in the child care setting, years working in child care, education level, gender, and ethnicity. Participants were also asked to estimate the rate of expulsions from their classroom or center and to report whether the center had an early childhood mental health consultant.

Measuring Participant Comfort with Teaching Children with Special Needs. Using a 6-point Likert scale, the participants were asked to identify their level of comfort teaching children with four common early childhood issues: developmental delays, emotional problems, behavioral problems, and peer relationship difficulties. The scale ranged from "1" indicating "very uncomfortable" to "6" representing "very comfortable." Overall, teachers reported more comfort with children with developmental delays than emotional or behavioral problems; however, these items were highly correlated (*r* = .70-.80). For this reason, analyses employed the mean of the three scales as a composite marker of comfort working with children with special needs.

Measuring Participant Attitudes about Mental Health Screening. To our knowledge, no questionnaire has been published regarding mental health screening in child care. For this study, we modified the Physician Belief Scale (PBS), a measure of physician attitudes toward mental health (Ashworth, Williamson, & Montano, 1984) to create the Screening Belief Scale (SBS, see the Appendix). The SBS includes 16 items scored on a 5-point Likert scale, with responses ranging from "Strongly Agree" (1) to "Strongly Disagree" (5). Six items were reverse scored. Modifications from the PBS were intended to shift the focus from attitudes and comfort about mental health issues in general to the child care setting specifically.

Analyses

Data were analyzed using SPSS 13.0. Responses to the survey's Likert scales were treated as continuous measures. The scale was analyzed using Principal Component Analysis (PCA), and items on the scale were assigned to subscales or eliminated based on PCA and item-total correlations. Differences in categorical variables were examined using chi square analyses, and T-tests were used to compare continuous variables.

Results

Study 1: SBS Factor Analysis

A PCA of the 16 items of the scale yielded two primary factors with eigenvalues of 2.3 and 1.7, respectively. A scree plot indicated that these two were the main factors, and the slope of the plot leveled off beyond these two factors, which accounted for 39% of the variance of the items.

Factor 1—"screening attitude"—included nine items that reflected participants' opinions on mental health screening in child care settings, such as "I believe that screening for emotional and behavioral issues is not very important in the child care setting" (see the Appendix). Internal consistency was high (Cronbach's alpha = .79). The second factor— "perceived knowledge" —included four items that reflected trainees' perception of whether they had sufficient knowledge to administer mental health screenings, including items such as "I do not know what to do if I think a child has emotional or behavioral issues." A fifth item focused on concern that the family would find screening offensive appeared to load onto this factor but had low (< 0.1) item-total correlations and was removed. The resulting factor demonstrated acceptable internal consistency (Cronbach's alpha = .60).

Factor Correlates

Screening Attitude. The mean score on the pre-training attitudes about screening scale was 36.7 (*SD* 5.3, range of 21-45). Child care providers who had achieved some certification beyond high school showed more positive attitudes toward screening than those who had a high school degree or no degree (38.2 vs. 36.0, $t(273) = -3.4$, $p < 0.001$). Years of experience was also associated with more positive attitudes ($r = 0.22$, $p < 0.001$). Working in a center with a mental health consultant was associated with positive attitudes toward screening (37.8 vs. 36.7, $t(249) = 2.2$, $p < 0.03$). The comfort composite measure showed a small association with screening attitude ($r = .19$, $p < 0.003$). Number of children expelled by a teacher was similarly negatively associated with positive attitudes toward screening at a small magnitude ($r = -0.18$, $p < 0.03$).

A stepwise multivariable regression analysis was computed (see Table 2). In the first step, we entered the demographic factors (experience, race, role, and education). In the second step, we entered early childhood mental health consultant history, number of expulsions reported by participant, and reported comfort with children with special needs. We used this order because demographic factors might influence the participant's response to an early childhood mental health consultant, expulsion patterns, or comfort with children with special needs. The model explained 11% of the variance of attitude toward screening; comfort and experience with an early childhood mental health consultant contributed independently (Table 2). Expulsion rate approached significance ($p = .056$).

Table 2
Hierarchical Regression for Screening Attitude and Perceived Knowledge factors ($n = 203^*$)

	Screening Attitude			Perceived Knowledge		
Variable	**B**	**SE B**	**ß**	**B**	**SE B**	**ß**
Step 1						
Years in child care	0.02	0.07	0.02	-0.06	0.04	-0.15
Beyond high school degree (Y/N)	0.31	0.34	0.08	0.20	0.17	0.11
Supervisory role (Y/N)	0.97	0.86	0.10	0.52	0.42	0.11

*Note: For screening attitude, Adj $R2 = .02$ for step 1 and Adj $R2 = .12$ for step 2. For perceived knowledge, $R2 = .00$ for step 1 and Adj $R2 = .12$ for step 2.
** $p < .05$.
*** $p < 0.01$.

Ethnicity	0.36	0.22	0.15	0.12	0.11	0.10
Step 2						
Prior or current MH	1.98	0.95	0.19**	1.01	0.46	0.20**
Number of expulsions	-0.23	0.12	-0.18	0.04	0.06	-0.68
Comfort with special needs	1.05	0.37	0.26***	0.40	0.13	0.21***

*Note: For screening attitude, Adj $R2$ = .02 for step 1 and Adj $R2$ = .12 for step 2. For perceived knowledge, $R2$ = .00 for step 1 and Adj $R2$ = .12 for step 2.
** $p < .05$.
*** $p < 0.01$.

Perceived Knowledge. On the perceived knowledge scale, the mean score was 13.4, with a standard deviation of 2.4 and a range of 4-20. Perceived knowledge had a positive relationship with having a degree beyond high school (14.1 vs. 12.9, $t(196.3) = -3.6$, $p < 0.001$) and with being a supervisor in the center (13.8 vs. 12.5, $t(272) = 4.1$, $p < 0.001$) and years in child care ($r = 0.28$, $p < 0.001$). Participants who reported higher levels of comfort with having children with special needs in the classroom also reported a modestly higher level of perceived knowledge of mental health screening (correlations, respectively, $r = .26$, $p < 0.001$). In the perceived knowledge multiple regression, we entered variables in the same order as in the screening attitude multiple regression. The resultant model explained 12% of the variance; comfort with children who have special needs and experience with an early childhood mental health consultant contributed independently.

Study 2: Change Following Training

SBS Factors

Screening Attitude. We found a significant increase in positive attitude toward mental health screening following training (see Table 3). Change in attitude about screening was negatively associated with pre-training attitude ($r = -0.41$, $p < 0.001$). No significant associations were found with the other participant characteristics.

Perceived Knowledge. Perceived knowledge also increased significantly between pre-training and post-training (see Table 3). Pre-training knowledge score was inversely associated with change in perceived knowledge ($r = -.60$, $p < 0.001$). There was a nonsignificant trend toward larger changes in perceived knowledge in Caucasian trainees than other racial groups (1.7 vs. 1.0, $t(218) = -19$, $p < 0.06$). No significant associations with other variables were found.

Table 3
T-tests for Pre- and Post-Assessment of Screening Attitude and Perceived Knowledge Factors

Variable	Pre-score Mean (*SD*)	Post-score Mean (*SD*)	Change Score Mean (*SD*)	*t* (df)	*p*
Screening attitude	36.5 (5.3)	38.1 (5.3)	1.6 (4.4)	-5.4 (202)	p < .001
Perceived knowledge	13.8 (2.8)	15.0 (2.4)	1.3 (2.6)	-7.1 (195)	p < .001

*Note: Range of screening attitude: Pre-score: 16-45, post-score: 20-45, change -14-15. Range of perceived knowledge: pre-score: 4-20, post-score: 9-20, change -7-8.

Discussion

To our knowledge, the two studies reported here are the first to examine child care providers' attitudes toward mental health screening. Together they constitute an important first step toward characterizing child care providers' attitudes about mental health screening and their perceived knowledge regarding mental health screening. The studies identify factors involved in positive changes in attitude and knowledge. With attention in the field increasingly focused on early childhood mental health, it is essential to understand child care providers' attitudes toward and perceived knowledge about mental health screening and their role in the process (especially if screening occurs in a child care setting).

Overall, participants reported relatively positive attitudes toward mental health screening in child care, which suggests that child care providers may be open to helping identify children in need of mental health assessment. Despite the overall high endorsement of positive attitudes, there was sufficient variability to explore our hypotheses.

Having an early childhood mental health consultant (MHC) in the center was associated with positive attitude about mental health screening but not with perceived knowledge. This finding is consistent with previous research focused on educational settings for children with a diverse set of disabilities, in which supporting the teacher's ability to meet the child's needs is associated with a positive attitude toward educating children with disabilities (Avramidis & Kalyva, 2007). Prior research on early childhood mental health consultation has demonstrated that teachers see the MHC as a valuable resource and source of support (Heller, Boothe, Keyes, Nagle, Sidell, & Rice, 2011). These findings suggest that experience with an early childhood mental health consultant may increase teachers' sense of support around mental health issues and may promote a positive view of mental health screening in early care settings.

The primary goal of Study 2 was to examine changes in attitude toward and perceived knowledge about screening following training. Our results indicate that the training was useful in modifying self-reported attitudes and perceived knowledge related to mental health screening. The fixed curriculum and use of locally based trainers, which have been identified elsewhere as characteristics of effective child care provider training, may have been important factors contributing in the effectiveness of the training (Fukkink & Lont, 2007).

The finding that changes in attitude and knowledge were not associated with specific background variables highlights the potential for training to influence attitudes and perceived knowledge about screening across the boundaries of roles in child care settings, experience, and education. This finding is also in line with prior research that found that professional education seminars or workshops had more impact on classroom quality than teacher education or years of experience (Honig & Hirallal, 1998). The strongest predictor of change in attitude and knowledge was the pre-training measure; this finding emphasizes that less positive attitude toward screening or less knowledge about screening did not reflect a fixed negative perspective toward screening.

Some limitations warrant discussion. First, a substantial proportion of respondents did not complete every item of the pre-training and post-training questionnaires. The only significant difference between the completers and noncompleters was race, with Caucasian child care providers being more likely to complete both questionnaires than child care providers of other races. Differences by race in participation in mental health projects are not unique to this project (U.S. Department of Health and Human Services, 1999), but further assessment of how cultural factors influence responses to the training and the questionnaire is warranted. Because of the importance of culture in defining both child development and beliefs about mental health (Zeanah & Smyke, 2008; dosReis, Mychailyszyn, Myers, & Riley, 2007), training programs may require adaptations that address the cultural beliefs of learners in different communities. Additionally, this project did not allow for effective reliability assessment. More formal assessment of test-retest reliability would strengthen the generalizability of the findings, although the correlates suggest some concurrent validity, as do the factors.

With any training assessment, the potential for social desirability response bias exists; respondents may provide responses that they think are socially appropriate rather than those that reflect their beliefs, especially immediately after training. Prior research has found that teachers may revert back to former behaviors when a post-test is delayed rather than administered immediately after training (Honig & Martin, 2009). This bias cannot be ruled out in our study. However, the differential changes in scores between the two scales (0.18 points per item on the attitude scale versus 0.32 points per item on perceived knowledge) suggest that something more than response bias played a role in the change between pre- and post-training.

This study is also limited by a potential threat to internal validity due to pretest sensitization (Campbell, Stanley, & Gage, 1963); that is, participants' scores may have increased merely by being exposed to the pre-test. Future research should include a control group to rule out the possibility of this effect.

Implications for Practice

Experience with an early childhood mental health consultant seems to have a positive impact on both child care providers' attitudes toward screening and their perceived knowledge regarding mental health screening

in young children. An early childhood mental health consultant can support a teacher in creating an environment that fosters social-emotional development and can assist with the inclusion of children who have mental-health-related special needs. Ideally, a center would seek out an early childhood mental health consultant to lead any training on mental health screening in very young children. Although the number of individuals trained to provide mental health consultation in early childhood settings is increasing, programs in some geographical areas have no access to early childhood mental health consultants. From our work in the child care community, we know that financial and professional resources can be limited. Often, a center director must create and provide training sessions herself. We believe a well-prepared director could provide adequate training on mental health screening, especially given the large number of related resources available on the Internet (e.g., from the Center on the Social and Emotional Foundations for Early Learning at http://csefel.vanderbilt.edu, Early Head Start National Resource Center at http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/center, National Association for the Education of Young Children at http://www.naeyc.org, and the Ages and Stages Questionnaire at http://www.agesandstages.com). Our findings suggest that providing training on the importance of screening and on how to screen helps staff to develop more positive attitudes and greater perceived knowledge about the screening process, which should support smoother screening implementation processes for identifying children in need of additional support.

Interestingly, expulsion rate was inversely associated with knowledge but not attitude. This finding suggests that training or mental health consultation may help to decrease expulsion rates by addressing knowledge gaps about children with special needs, including mental health needs. This finding is in line with prior research that has found that child care programs with access to a mental health consultant had fewer expulsions than programs without such access (Gilliam, 2005).

Future Research

Our findings invite multiple lines of further research. Examining longer-term effects of training will be a valuable pursuit. For example, post-assessment done months after the training could examine the durability of lasting early change and limit social desirability effects. Another question would be if positive attitude or perceived knowledge would differ based on whether the director or a mental health professional administers the training. In addition, research on families' attitudes toward screening in child care settings would be beneficial, as would studies focused on cultural issues and populations affected by health disparities in mental health screening. Perhaps most importantly, future studies should focus on whether changes in attitudes and knowledge are associated with specific changes in caregiver behavior, such as implementation of a screening project and increased testable knowledge about early childhood mental health.

Conclusions

Early childhood mental health screening in child care settings is an innovative and important opportunity to identify children in need of further mental health assessment and possibly treatment. In our study, child care providers were generally positively inclined toward participating in mental health screening, and their attitudes and perceived knowledge about mental health screening increased after a single 3-hour training session. Despite some methodological limitations of this preliminary study, we believe that our findings offer an important first step toward understanding the attitudes and perceived preparedness of child care providers toward mental health screening.

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Author Information

Dr. Gleason is a pediatrician and child and adolescent psychiatrist is an early childhood mental health clinician and researcher. She is the clinical co-director for Louisiana's early childhood mental health program, Early Childhood Supports and Services program, where she also serves as a child psychiatrist, and she serves on the American Academy of Pediatrics Early Childhood and Brain Development Leadership Work Group. Her academic work focuses on early identification of childhood mental health disorders, mental health disorders in high-risk children, especially reactive attachment disorder, and the translation of research findings into real-world practices across disciplines.

Mary Margaret Gleason, M.D.
Assistant Professor
Department of Psychiatry and Behavioral Science
Tulane University School of Medicine
New Orleans, LA 70112
Email: mgleason@tulane.edu

Sherryl Scott Heller, Ph.D., is currently an associate professor at Tulane University School of Medicine and the Tulane Institute of Infant and Early Childhood Mental Health. Dr. Heller serves as a senior consultant director for Tulane's Quality Start Early Childhood Mental Health Consultation (ECMHC) program. Dr. Heller is currently collaborating with local community agencies to pilot the ECMHC program in kindergarten classrooms in charter school settings. Dr. Heller has recently co-edited a book on providing reflective supervision to professionals in the field of early childhood intervention. Dr. Heller has long-standing clinical and research interests in the effects of maltreatment on child development, the development of attachment and attachment disturbances in very young children, child care, the effects of violence on child development, perinatal loss, and reflective supervision.

Geoffrey Nagle, Ph.D., L.S.C.W., M.P.H., is the director of the Tulane University Institute of Infant and Early Childhood Mental Health and an associate professor of psychiatry at the Tulane University School of Medicine. Geoff has served as the state director of BrightStart since 2003, which has been designated by Governor Bobby Jindal as Louisiana's State Early Childhood Advisory Council. Geoff works closely with state government leaders to enhance Louisiana's early childhood system and to increase the opportunities to provide high-

quality early care and education. This advocacy has resulted in Quality Start, Louisiana's child care quality rating system, and new laws that create an Early Childhood System Integration Budget, the School Readiness Tax Credits, and for the future phased-in expansion to universal PreK.

Allison B. Boothe, Ph.D., is a licensed clinical psychologist with specialized training in Infant and Early Childhood Mental Health. She is an assistant professor of clinical psychiatry at Tulane University School of Medicine and is the coordinator of the Louisiana Quality Start Mental Health Consultation to Childcare Centers Program. Allison co-developed the Louisiana Quality Start mental health consultation model, which focuses on supporting young children's social-emotional development in the context of child care centers. As a senior mental health consultant for the program, Allison has provided mental health consultation to child care centers across the greater New Orleans are, and she supervises mental health consultants across the state. Allison is a member of the steering committee for the Bridge to Quality Project of the Greater New Orleans Child Care Rebuild Collaborative. Her research interests include the impact of mental health consultation on child care quality, school readiness, clinical interventions, and identity development.

Angela Keyes, Ph.D., joined the Tulane Institute of Infant and Early Childhood Mental Health in 2002. She is currently an assistant professor of psychiatry and director of the Environment Rating Scales Assessment Team for Quality Start, Louisiana's Tiered Quality Rating and Improvement System. Dr. Keyes facilitates a course on multiculturalism in clinical practice for psychology interns as well as a course on working with parents in managing their children's behavior. She has assisted in developing a model for mental health consultation to support child care centers with a focus on fostering children's social-emotional development as well as teaching techniques to modify children's challenging behaviors in a positive way. Dr. Keyes also provides reflective supervision to the mental health consultants who serve child care centers that are working toward improving the quality of care they provide to children birth to 5 years.

Appendix
Factor Loadings of Individual Items on the Survey*

This scale is designed to assess a variety of beliefs that you may or may not hold as a child care professional. Statements representing these beliefs are listed below. Next to each statement, circle the number that most closely represents your agreement or disagreement with the statements.

		Factor	Factor 1 Loading	Factor 2 Loading
1.	It is not a child care center's responsibility to have discussions about emotional or behavioral issues.	1	.55	
2.	I do not believe that child care professionals can offer much for children with emotional or behavioral issues.	1	.63	
3.	Emotional and behavioral issues are private and should be discussed only within the family.			
4.	There is a lack of evidence that screening can be beneficial to children.	1	.58	
5.	I do not believe I can be helpful if a child has an emotional or behavioral issue.	1	.64	
6.	I am comfortable discussing emotional or behavioral issues with parents.			
7.	I believe that screening for emotional and behavioral issues should be a priority in my child care center.	1	.55	
8.	I worry that families will find screening for emotional and behavioral problems offensive.			
9.	I believe that screening for emotional and behavioral issues is not very important in the child care setting.	1	.54	
10.	I have sufficient training to screen for emotional and behavioral issues.	2		.67
11.	I am aware of the confidentiality requirements when screening for emotional and behavioral issues.			
12.	I do not know what to do if I think a child has emotional or behavioral issues.	2		.67
13.	My center has a strong commitment to identifying emotional and behavioral issues in children.			
14.	I am reluctant to screen for emotional and behavioral issues because I do not want to get stuck in a complicated family discussion.	1	.69	
15.	There is a specific policy for screening for emotional and behavioral issues in my center.			
16.	In young children, "social-emotional" problems are really just parenting issues.	1	.59	
17.	I know how to identify resources in my area to evaluate children who may have emotional or behavioral issues.	2		.64

*Only those factors loading above 0.5 are reported.

18.	Screening for emotional and behavioral issues is just a way to put children on medications.	1	.58	
	Crohnbach's Alpha		*.79*	*.60*

*Only those factors loading above 0.5 are reported.