

The Relations Among Parent Discipline Strategies and Observed Parent and Child Behavior in Preschool-Aged Children.

Faculty Research Grant Application Summer 2008

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Ia. Description

I will investigate how parents develop discipline strategies and how these strategies are associated with observed parent and child behavior during a structured laboratory task. A developmental psychology lab will be constructed to support the present study and future research projects.

Ib. Abstract

This proposal involves both a specific research project for this summer and the development of a child development research lab that would be available to support my own research in the future, as well as undergraduate research. The focus of the current study is the relation among parent-reported discipline strategies and observed parent-child interactions. The proposed study would result in videotaped parent-child interactions that could be used to address additional research questions, such as topics related to child emotion expression and regulation. In addition to my own research to be done with student collaboration, these videotaped interactions would allow future undergraduate students the opportunity to address their own research questions with a population that typically would be beyond the scope of an undergraduate study and currently unavailable to psychology majors at Elmhurst College. This proposal would support the physical development of a child-friendly laboratory space available to this faculty member and undergraduate students for future research projects, as well as filming of demonstrations for classes.

II. Narrative

1. Current Situation

Elmhurst College

This faculty development grant is requested as start-up funding for a developmental research lab. I have a room available to me as lab space (SC 018), which is currently furnished with standard office furniture. With these funds, I would like to be able to create a child-friendly room for research participants and their families and to purchase the materials to support observational research, including a video camera and assessment measures. There is not currently a laboratory space at Elmhurst College designed for parent-child observational studies and no Psychology faculty are conducting research in this area. In my first year here at Elmhurst College I have had several students approach me about becoming involved in developmental research. With the development of this lab, I would be able to provide undergraduate students the opportunity to be involved with data collection, coding and data analysis through both the present study and future research projects. I would be able to provide data for advanced psychology majors interested in pursuing their own research questions with a population that would otherwise be difficult for them to access. This laboratory space could also be used to film demonstrations for my courses in developmental psychology, such as children of different ages completing one of Piaget's conservation tasks or examples of differences in children's emotion regulation.

Research on Parent Discipline Strategies

Child mental health is a significant concern in the United States, with estimates of 1 in 5 children experiencing mental health problems at some point during childhood or

adolescence and significantly more children presenting with difficult behavior that may not meet the threshold of a disorder (U.S. Public Health Service, 2000). The field of developmental psychopathology has emerged over the past 25 years, with a focus on identifying the risk and protective factors associated with the development of disorders in children and adolescents, as well as applying an understanding of normal development to explaining the development of disorders (e.g. Cummings, Davies & Campbell, 2000). Risk factors are associated with an increased likelihood of the development of a disorder, while protective factors are associated with a decreased risk for the development of a disorder. Early parent-child relationships have the potential to serve as both risk and protective factors for children (Cummings, et al., 2000). While children's development is shaped by early parent relationships, it is also recognized that child characteristics contribute to the relationships and elicit particular responses from parents. Research on parenting styles has discussed the relation of parenting styles and practices to children's development, with a focus on the degree of parental warmth and degree of parental control distinguishing four types of parenting styles. Subsequent research has demonstrated more positive outcomes to be associated with the authoritative parenting style, those parents who are high on warmth and control (Darling & Steinberg, 1993).

The issue of how to discipline a child is one that most parents of preschool-aged children face, in terms of both how to handle misbehavior and how to encourage more positive behavior. Learning theory emphasizes the role of reinforcement in the maintenance of a behavior and often children's misbehavior may be inadvertently reinforced by the environment. For example a child who throws a temper tantrum when asked to do a chore, may not end up having to do the chore once he/she has calmed down,

therefore the child's tantrum has been reinforced. Evidence-based interventions for children with disruptive behavior disorders are based on setting clear, consistent limits and natural and logical consequences for behavior (Kazdin & Weisz, 2003). Although research has demonstrated effective interventions, many parents do not learn about such techniques until they are referred to a psychologist for a child's behavior problem. I am interested in learning more about how parents in a non-clinical, community sample develop a discipline style and how their reported discipline style relates to observed parent-child interactions in a laboratory setting.

Questions that the current research study is designed to address include: Where do parents of preschool aged children learn discipline techniques- are they likely to have consulted a professional, read a parenting book, modeled their own parents' behavior or sought advice from friends and family members? Does the type of technique reported by parents correlate with their observed behavior in the laboratory tasks with their children? Are children whose parents endorse a particular style of parenting (reported and/or observed) better regulated during a series of laboratory tasks?

I am also interested in using data collected during this study to investigate children's emotion regulation and parent socialization of emotion expression, another area of research within the field of developmental psychopathology. Children's regulatory abilities are hypothesized to be associated with the development of later psychopathology (Cole, Michel, & Teti, 1994). This research would build upon my research conducted in graduate school, as part of the Collaborative Family Study.

2. The Project Plan

The proposal for the current research study is based on collaboration with Dr. Beyer at Dominican University. Dr. Beyer is also a first-year faculty member establishing a developmental research laboratory for undergraduate research. Given the complexity of conducting research with children and their families, we have designed a study which addresses both of our research interests related to preschool-aged children. This collaboration allows us to include a larger sample size than either of us could either recruit or support individually. This larger sample size benefits not only our own research, but undergraduate research also. Dr. Beyer is interested in children's cognitive development, specifically, transcribing, coding and analyzing parent-child discussions of past, shared events. The narrative task included in the present study is consistent with previous research conducted by Dr. Beyer, and considered the standard design for this area of research (e.g., Fivush & Fromhoff, 1988).

The plan for the proposed study is to recruit throughout the near-western Chicago suburbs (Oak Park, River Forest, Melrose Park, Bellwood, Lombard, Glen Ellyn), with families undergoing the lab task at the campus closest to them (either Elmhurst College or Dominican University), with a goal of 50% of the families being seen at each site. Our goal is to recruit 40 four-year old children and their mothers across the two sites (20 at each site). Recruitment will begin in Spring 2008 with both faculty members making connections with local daycare centers, offering to present talks relevant to our expertise. Once the laboratories are established at each site, we will hang flyers in local libraries, grocery stores, etc, and consider an article in a local news publication. It is our hope that the recruitment efforts we engage in for this project will foster ongoing relationships with

local daycare centers for future research collaborations. We also plan to ask parents for consent to contact them in the future about research opportunities.

Families will contact the researchers at either institution. Dr. Beyer or Dr. Gaze will explain study involvement to the families, ask where the family learned about the study and schedule a visit to the campus. Both sites will keep track of the number of families spoken with on the phone and those who complete the study to aid in planning recruitment for future studies. Visits will be scheduled for one hour. A laboratory visit manual will be written including the exact directions the experimenter is to say and the structure and order of the tasks to ensure consistency across the two sites. An outline of the structure of the visit is provided below.

Dr. Gaze or Dr. Beyer will sit down with the parent to review the consent form and answer any questions they may have. Dr. Beyer or Dr. Gaze will administer a brief vocabulary measure (PPVT/EVT) to the children while the mother completes questionnaires. For an analysis of the parent-child narrative task, it is important to have a measure of children's expressive language abilities. Following the PPVT/EVT, while mothers are completing the questionnaires, children will be provided toys to play with on an area rug near the mothers. A research assistant will be videotaping the interactions from one corner of the room. After 10 minutes, mothers and children will be instructed to clean up the toys (5 minutes). Mothers and children will then participate in the discourse task discussing a past, shared event. Following the discourse task, mothers and children will complete a series of three increasingly difficult problem-solving tasks together (2 minutes, 3 minutes and 5 minutes each; e.g. Gaze & Edelbrock, 2003; Hoffman, Crnic & Baker, 2006). These tasks elicit children's emotional responses to tasks that represent

daily occurrences for young children such as having to clean up a toy when they are playing or persisting at a task that may not come easily. The tasks provide a structured observation of both parent and child reactions. The structure of the laboratory visit ensures that each child experiences the same task. To address possible frustration associated with laboratory tasks, these tasks are time-limited, which serves to minimize the already low risk of discomfort for each child. In addition, following each task the child receives praise from the experimenter for his/her effort on that task. After completion of the tasks, children will be allowed choose a prize from a basket of assorted items and parents will be provided with a copy of a popular parenting book “1-2-3 Magic” as compensation for their participation in the study.

Mothers will complete a demographics form, providing background information about the child and their family, a rating of child behavior problems (Child Behavior Checklist, CBCL; Achenbach & Thomas, 1994), a rating of parenting techniques (from the Incredible Years Research Program at the University of Washington), and a rating of the parent-child relationship (Pianta, 1992).

All procedures used in this study have been used widely in previous research, with little to no discomfort or risk to either the parents or the child. Nevertheless, some of the questions in the questionnaires do seek personal information, and parents will be told that they do not have to complete any items they feel uncomfortable answering. All participants' responses will be anonymous. Each participant will be assigned a subject number with which their data (including the videotaped observation) will be labeled. A master list will be maintained by the primary investigator at each site in a password-protected computer file. All data collected in paper form and the DVDs of the

observation will be stored in a locked file cabinet in a locked research laboratory at each site. Only trained research assistants and the principal investigators will have access to the data.

Although the present study is designed as a collaborative project with Dr. Beyer, the developmental psychology laboratory developed at Elmhurst College with this grant would be able to support independent research in the future.

3. Faculty Expertise

I am licensed child clinical psychologist with research experience with preschool-aged children. As a graduate student (1999-2005), I was part of the Collaborative Family Study, an NIMH funded, multi-site longitudinal study of children and their families between the ages of 3 and 9. My responsibilities included conducting home observations with the families, running laboratory visits and supervising teams of undergraduate students coding children's expressed emotion and emotion regulation. I was awarded a Ruth L. Kirschstein National Research Service Award by the National Institute of Mental Health for my dissertation research which was based on the Collaborative Family Study. As a post-doctoral research fellow at Johns Hopkins School of Medicine, I coordinated an NIMH funded clinical research trial in collaboration with 5 additional research sites. In this role, I supervised a bachelor-level research assistant, in addition to working directly with the children and their families.

4. Plans for Evaluation and Dissemination

This project will be evaluated for success on several levels. To begin with, since both Dr. Beyer and I are new to the Chicago area and will be establishing connections with the local community during the course of this study, we will consider the percentage

of our targeted subjects that we are able to recruit in the timeline specified as a measure of success. We are prepared to continue recruitment into the academic year if necessary. In this evaluation we want to include consideration of the utility of specific referral sources, in order to streamline future recruitment efforts.

It is my plan to submit at least one manuscript based on this data to a journal in the field by August 2009 (with Dr. Beyer taking the lead on a separate manuscript during the same time frame). I would encourage students involved in the research project over the summer, as well as future undergraduates interested in using the data, to present their findings to the Elmhurst community at the Research and Performance Showcase as well as a conference such as the Midwestern Psychological Association or the American Psychological Association. This data would be available to students interested in pursuing their own research questions related to parent-child relationships. It is my hope to use data collected from this study to support a grant application from an external funding source, such as the National Institutes of Health, in the future.

III. Time line

Spring 2008 (before June 15th):

- Submit materials for Institutional Review Board approval
- Make connections with local daycare centers that will be willing to distribute flyers about the study. Offer to do presentations for parents of children at the center on topics related to child development.
- Hire two undergraduate research assistants for the summer
- Purchase materials for the lab space
 - set up camera, computer and train all personnel to use the equipment.

- order/photocopy questionnaires

- run at least one volunteer family through the laboratory sequence before subjects are recruited

Summer 2008:

- Run subjects- ideally 2-3 per week at each site. Ideally all subject recruitment will take place during the summer, but if it is difficult to bring families in due to vacation plans and summer schedules, we will extend recruitment into the fall.

- Finalize coding manuals for videotaped observations

- Hold weekly lab meetings (with students at both sites) to discuss progress and review literature related to the current study

- Begin transcription of discourse task (at Dominican University)

September 2008-May 2009

- transcription of discourse task and coding of videotaped observations will be completed by teams of undergraduate assistants.

- data analysis ongoing during this time; questions related to coding will be completed during Summer 2009.

- 1 publication (by each faculty member) to be submitted by August 2009

- one national conference presentation

- one student presentation at a local conference

- Elmhurst College Research and Performance Showcase May 2009

During the summer, my primary commitment will be research. In addition to conducting this study and establishing a developmental research lab at Elmhurst College, I plan to submit two manuscripts based on my work with the Collaborative Family Study

to journals in my field and to submit a poster to the Biennial Meeting of the Society for Research in Child Development which will be held in Denver, CO in April 2009.

Submissions for the conference are due in August 2008. I will also be maintaining my clinical work with children and adolescents through the Pediatric Consultation Center in Glenview, IL. I will be seeing no more than 2 weekly therapy cases and one psychological evaluation at a time, for a maximum commitment of six hours per week. I will be preparing for one new course for the fall semester (PSY 356 Research Methods in Psychology).

IV. Budget

<u>Item</u>	<u>Cost</u>
Developmental Psychology Lab Supplies	
Children's Furniture	\$600
Games/toys	\$ 50
Video camera and tripod	\$400
Child Behavior Checklist (forms, manual, and computer scoring program)	\$250
Expressive Vocabulary Test- 2 nd Edition (EVT-2)/ Peabody Picture Vocabulary Test- 4 th Edition (PPVT-4) combination kit	\$400
	<u>\$1700</u>
Summer 2008 costs	
Books/toys for participation	\$300
Postage	\$50
Photocopies	\$50
Hourly pay for undergraduate research assistants 2 students- each 5 hours a week, \$8/hour	\$800
<u>Summer salary</u>	<u>\$600</u>
	<u>\$1800</u>

Total funding: \$3500

Budget Justification

My budget outlined above includes costs related to the establishment of a developmental psychology research lab that will be able to be used for multiple studies

and the specific costs related to conducting the present study this summer. The first \$1700 of the budget is allotted to materials related to the establishment of a lab, which will support the present study as well as future research. The remaining amount of the budget covers salary and items specific to the research study to be conducted this summer. Dr. Beyer has requested equivalent funding from Dominican University to support half of the summer project.

Under the category of “Children’s furniture” I would like to purchase child-friendly items, such as a small table and chairs, storage for toys/games, a small sofa and a screen/room divider to separate the computer/student work area from the families during an observation. The \$600 estimate is based on a search of items online at stores such as Ikea and Target. I would also look into local consignment shops that sell children’s toys and furniture. The category of children’s games/toys will include items used during the observation for free play and the structured parent-child activities. I am requesting money to buy a camcorder with a built-in hard disk drive would allow easy transfer of the recorded observation to a computer to be burned onto a DVD.

The Child Behavior Checklist is a commonly used and well-validated measure of child characteristics. This kit includes 50 forms, the manual and a computer-scoring program that can be used for future studies, in addition to the current study. For future studies, I would just need to order additional forms. The same is true for the Expressive Vocabulary Test-2nd Edition and the Peabody Picture Vocabulary Test-4th Edition, this initial set includes the manual and stimulus presentation book, and additional forms could be ordered for future studies.

Money requested for the current study would cover a parenting book (1-2-3 Magic) for parents and the child's choice of a toy as reimbursement for participation in the study. Funding for undergraduate research assistants would allow two students the opportunity to gain research experience. During the academic year, students may earn course credit for research, but during the summer, students would have to pay tuition in order to earn course credit for their research position. The remaining \$600 is budgeted for my own summer salary.

V. Current and Previous Grants

I have no current grants. In 2003, I was awarded a Ruth L. Kirschstein National Research Service Award by the National Institute of Mental Health for my dissertation research which was based on the Collaborative Family Study. It is my hope that the research funded by this current application could be used to support a grant application from an outside source, such as the National Institutes of Health.

VI. Publications (since 2005)

Publications in Peer Reviewed Journals

Gaze, C., Kepley, H. and Walkup, J. (2006). Co-occurring psychiatric disorders in children and adolescents with Tourette Syndrome. *Journal of Child Neurology*, 21, 657-664.

Crnic, K., Gaze, C., and Hoffman, C. (2005). Cumulative parenting stress across the preschool period. *Infant and Child Development: Special Issue: Parenting Stress and Children's Development*, 14 (2), 117-132.

Presentations at National Conferences

Gaze, C. (April 2005). Parenting stress and child functioning during the preschool years: Comparisons of mothers and fathers. In A. Walker and L. Cottrell (Chairs) *Parental behaviors as determinants of child and adolescent outcomes*. Symposium conducted at 2005 Biennial Meeting of Society for Research in Child Development, Atlanta, GA.

Killeen, L., Gaze, C. & Crnic, K. (April 2005). *Parent and child gender differences in the relations between parenting behavior and marital quality*. Poster presented at Biennial Meeting of Society for Research in Child Development, Atlanta, GA.

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- Darling, N. & Steinberg, S. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, 113, 487-496.
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- Gaze, C & Edelbrock, C. (April 2003). *Emotion expression and dysregulation in 3-year-old children: Developmental risk, parenting and gender differences*. Poster presented at 2003 Biennial Meeting of Society for Research in Child Development, Tampa, FL.
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