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Child Maltreatment: An Examination of Models of Causation
and the Issue of Standardized Measurement

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Robert Carl Foulk, Jr., B.S.S.W., M.S.W.

* * * * *

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ACKNOWLEDGMENTS

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Chapter I

INTRODUCTION

The 1974 passage of PL 93-247, the Child Abuse Prevention and Treatment Act, signaled the formal recognition of child abuse and neglect as a social problem of national scope. However, as Kamerman and Kahn note, "the problem of child abuse and neglect did not suddenly emerge in the middle of the twentieth century" (1976). "Records from the English colonies in America depict all manner of child abuse and neglect" (Nelson, 1979, p.99). In fact, public recognition of child maltreatment and resulting public action have a long history.

The issue of dependent and neglected children is addressed in English Common Law predating the foundation of the United States. The first American institution for children was founded in 1729, and the first publicly funded children's institution was established in 1790. Although these institutions dealt with delinquents, the primary issue was preventing delinquency as caused by neglect, dependency, and abandonment (Axinn and Levin, 1975). The first child protective agency in the United States, the New
York Society for the Prevention of Cruelty to Children, was established in 1874.

As legal entities, child abuse and neglect are constructions of the nineteenth century (Giovannoni and Becerra, 1979). During the twentieth century there have been many changes both in the conception and the approach to child maltreatment as reflected by definitions and institutions designated to manage the problem. Giovannoni and Becerra (1979, p.31) suggest that "these changes have paralleled others in the society, particularly changing concepts about children themselves and about the role of the family."

The first White House Conference on Children was convened by President Theodore Roosevelt in 1909. This conference focused upon the plight of dependent children, and is credited with providing the impetus for the creation of the Children's Bureau in the Department of Labor in 1912. President Hoover convened the third White House Conference on Children in 1929. One of the products of this conference was a document entitled the "Children's Charter," which emphasized "the child's need for love, security, and understanding, as well as for protection, recreation, and proper schooling as preparation for adulthood" (Federico, 1979, p.49).
The surge of attention to the specific issue of child maltreatment, which ultimately culminated in the 1974 Act, began in the 1940's and early 1950's when, as radiological instruments became more widespread in their usage, radiologists began to report unusual multiple bone fractures in small children (Antler, 1978). The conception, etiology, and treatment of this problem were developed in accordance with a medical disease model by physicians, and were ultimately presented in literature during the early 1960's as the "battered child syndrome" (Kempe, et al., 1962, pp.17-24). During the 1960's, the issue of child abuse became increasingly more visible both to policy makers and the general public. However, Antler is correct in noting that "in emphasizing physical abuse, the medical model has diverted attention from neglect, the less obvious, though more widespread form of maltreatment" (1978, p.59).

A 1980 study that profiled caseloads for public service agencies nationwide revealed that child neglect was the most frequently cited problem (Study Findings: National Study of the Incidence and Severity of Child Abuse and Neglect, 1981). However, child neglect is itself relatively neglected as a topic in social science literature. The support for such an assertion can be demonstrated by a cursory literature review. Examination of any of the annotated bibliographies published by the Region V Child Abuse and
Neglect Resource Center reveals that the preponderance of books and articles addresses only child abuse, or include both abuse and neglect in their titles and then proceed to discuss primarily abuse. As it has been aptly noted, neglect is often the "stepchild" in the field of child maltreatment even though the ratio of occurrence is approximately 5 to 1 (Korbin, Brazier, and Swinger, 1980).

ISSUES OF CONCERN FOR CHILD WELFARE PRACTICE AND RESEARCH

The topic to be addressed by this study is child maltreatment, with a particular focus upon child neglect. With the passage of mandatory reporting laws during the 1960's and the passage of PL 93-247 in 1974, there have been increasing numbers of potential neglect as well as abuse cases referred to public agencies for investigation. In Ohio, as mandated by Section 2151.421 of the Ohio Revised Code, county reporting agencies must perform a preliminary investigation and make a determination as to the presence of maltreatment in a home within 24 hours after a complaint is received. This process also requires a decision to remove or not to remove a child if maltreatment is documented.

Except for all but the most extreme cases, this is an unreasonably short period of time to do justice to a decision potentially affecting the fate of both parents and
children. Rosen (1981) found that for many social service workers in protective services, identification of maltreatment was a difficult and confusing task. She also found a general lack of consensus concerning which pieces of information were of value as diagnostic indicators. In addition, gathering information for such decisions is often made even more difficult by many families' understandably hostile reaction to the authoritative intrusion of child welfare investigators.

Several notable factors impinge upon the investigation and the dispositional decisions in potential maltreatment cases in general and neglect cases in particular. These are:

1. definitional confusion;
2. weak empirical knowledge base; and
3. idiosyncratic decision models employed by child welfare workers.

These are not discrete issues, but rather are highly interrelated. The pages that follow will briefly discuss these factors as well as other issues affecting child welfare case actions.
Definitional Confusion

Definitional confusion with respect to child maltreatment can be largely attributed to the theoretical diversity in the social sciences. Although Kuhn (1970) notes that this diversity is an understandable artifact of the present developmental stage of the social sciences as science, such philosophical detachment is of little comfort to a child welfare worker who has an immediate need for ready answers to pressing questions about such issues as child maltreatment (Kuhn, 1970).

Sweet and Resick (1979) observe that theories addressing child maltreatment can be grouped into four global categories of theory: psychodynamic, social learning, social psychological, and sociological. Each of these theoretical categories posits a different conception of maltreatment etiology, and hence treatment, often using identical clusters of variables. Also, there are different attributional ramifications realized by parents who have been labeled as neglectful from these differing perspectives. Such differences are of significant, pragmatic importance since the particular a priori, theoretically derived conception of child maltreatment embraced by a child welfare worker will largely determine what individual and environmental factors will come under attention, as well as how those factors will be considered (causes, intervening factors, or
effects) (Hawkins and Tiedeman, 1975). As a result, the lack of theoretical consensus as to what conditions or situations precisely constitute child maltreatment and what causes it to occur, particularly in non-extreme cases, creates a divergent treatment of the subject in literature and the potential for inconsistent disposition of reported cases (Sweet and Resick, 1979).

Problems with Knowledge Base

"There is a certain confusion in literature on maltreatment of children because of a lack of clearly defined terms" (Gelles, 1976, p.135). This should be expected, given the noted theoretical diversity. However, there are some general consistencies.

Giovannoni (1971) differentiates child abuse from neglect using the criteria of commission as opposed to omission for classifying parental "acts" that have a harmful effect upon a child. "Neglect represents the failure to perform parental duties, including those of supervision, nurturance, and protection" (p.649). The omission-commission criterion enjoys consensual support in the literature. Although viewing abuse and neglect as polar ends of a single dimension would vastly simplify maltreatment conceptualization, studies such as that by Gaines and his associates (1978) have been more supportive of a separate problem model.
Other factors that frequently appear in the literature as being associated with child maltreatment are social isolation of parents (Polansky, Borgman, and DeSaix, 1972), cultural or subcultural influences (Korbin, 1980; Gil, 1971), female-headed household (Wilson, Daly and Weghorst, 1980), quality of neighborhood (Garbarino and Sherman, 1980), and parental pathology (Polansky, Borgman, and DeSaix, 1972), as well as numerous others. Poverty and stress related to poverty are also consistently cited factors. While some authors have asserted that maltreatment is a "classless" phenomenon, more recent studies tend to support the position that maltreatment is highly associated with poverty (Study Findings: National Study of the Incidence and Severity of Child Abuse and Neglect, 1981). Pelton (1978) presents evidence indicating that child abuse and neglect, especially in their most severe forms, occur disproportionately among the lower socioeconomic classes. Although poverty is more often cited in recent literature, perceptions as to how it operates as a variable differ, with the differences being largely along theoretical lines.

The difficulty of identifying facts concerning child maltreatment that can be used in practice is further confused by the existence of longstanding, unsupported beliefs. For example, there are numerous and divergent definitions of adequate or appropriate child care (Authier,
"A myth is a partial truth that has achieved validation by virtue of repetition," (Kadushin, 1977, p. 141) and as Kadushin further notes, myths abound in the area of child care and child welfare. Pincus and Minahan (1973) observe that a tendency towards the acceptance of unconfirmed information or conventional wisdom as knowledge and the failure to differentiate between knowledge and values has had an inhibitory effect upon the development of an empirically sound knowledge base for social work practice. This observation applies to the field of child welfare.

This degree of confusion is much more than a scholarly issue. Child welfare agencies are daily confronted with the demands of investigating and making interventive decisions for reported cases of maltreatment. The state of knowledge concerning child maltreatment forms part of the basis upon which workers make their decisions. Therefore, to the degree that the knowledge base is inadequate, the decisions based upon it, particularly in the "grey" areas, must be held suspect. When the nature of these decisions involves the potential for children being separated from their parents, a worker's use of questionable knowledge to inform the decision process becomes an issue of considerable gravity.
Idiosyncratic Decision Models

While the different theoretical conceptions of child maltreatment would understandably introduce substantial variability into decisions made by workers privy to similar case information, it would seem reasonable to hypothesize that decision-making results for individual workers, employing their theory of choice, would demonstrate consistency. In 1963 Briar noted that very little was known about how social workers form their clinical judgments. During the intervening years, some attempt has been made to study the judgment process of social workers systematically.

In a study that attempted to correlate worker-quantified weights for key case variables with the decision to intervene or not to intervene after case screening, Whittington, Digman, and Digman (1974) found that the worker-defined weights accounted for only 37 percent of the variance in interventive decisions. A noteworthy irony in the Whittington findings was that clients who did not receive help were often those who the researchers judged to be in the greatest need.

In conducting dissertation research that addressed the same issue as the Whittington study, Bean (1982) found that workers' subjective weights differed. He further found that for individual workers, the magnitude of weights sub-
jectively assigned to case characteristics used in making a decision tended to be only weakly related to weights derived from empirical analysis of their actual decisions.

Clearly, this finding suggests that variability in disposition among workers is not solely a function of theoretical diversity and a less-than-adequate knowledge base. The fact that the variables workers claimed had influenced their decision process were found to be only weakly instrumental points to a problem in how workers understand their own decision processes.

CLASSIFICATION

The task facing child welfare investigative workers, a task made difficult by factors discussed in the previous pages, is classification. Initially, a worker must determine whether a problem exists, and if so, whether it is abuse, neglect, or both. Additionally, there must be a determination as to severity.

Virtually any text that addresses the topic of social work practice will contain a chapter or major section exploring the task of assessment. Siporin (1975) states that assessment is both a process and a product of understanding, upon which helping action is based and that results in "a definition of the client's problem, identity, and life situations that are highly individualized and
accurate" (p. 219). Pincus and Minahan (1973, p. 102) similarly note that "the problem of assessment is never an end in itself; its purpose is not simply to classify, categorize, or assign diagnostic labels to a person or situation." Nevertheless, rapid classification is an unavoidable requisite when the determination of child maltreatment is required. The immediate goal of the process is to classify and act quickly.

A necessary precursor to the study or treatment of a condition such as child maltreatment is the ability to discriminate between maltreating and non-maltreating conditions. Lorr (1961) presents two different ways of approaching classification. These are:

1. problems or disorders are either present or absent, and accordingly, to be present requires that all or nearly all symptoms or attributes must be present; and,

2. problems and disorders are dimensional, a matter of degree, varying with intensity in correspondence to variance in symptom manifestation.

Although viewing classification as a dichotomous choice simplifies diagnosis and the decision process concerning actions to be taken, human attributes and life conditions are more accurately portrayed on continua. From this perspective, symptoms or other indications can vary from
nonexistent or mildly intense to severely intense. With such classification the decision process is complicated by the need to determine at what symptom manifestation level intervention is justified.

Whichever classificatory model is employed, it is critical that the process of classification itself be informative. It should suggest relationships among relevant variables and an appropriate intervention, as well as likely future behavior if intervention is initiated, or if it is not (Quay and Werry, 1979).

**Criteria for Evaluating a Classification System**

As noted, it is important that a designated classification (diagnostic label) be informative. A prerequisite to the task of evaluating the adequacy of a classification scheme is the clear description of whatever is to be classified, as well as the operational definitions of the indicator(s) employed in the classification process. Kaplan (1964) notes that one needs to be as certain as possible that when concepts are employed, they be grounded in the "real world," and not exist solely as intellectual reifications: they must reflect the reality of the context wherein they are employed.

Stuart (1970) discusses many such conceptual problems concerning psychodynamic formulations for explaining human behavior and behavioral dysfunction in particular. He
notes, for example, that there is no generally acceptable
description of a "healthy personality" or any concise
delineation of healthy functioning. Hence, psychodynamic
diagnostic labels indicate negative states without any
clear description of their relationship to healthy func-
tioning. Healthy only becomes the lack of identified dis-
ease. Diagnosis in such circumstances becomes nothing more
than "pejorative name calling" (Menninger, 1963).

Although psychodynamic constructions are only one of
several theoretical perspectives employed in the classifi-
cation of families as maltreating or non-maltreating, they
are an ubiquitous factor in the literature. Sweet and
Resick (1979, p. 43) observe that "a substantial portion of
the child maltreatment literature has relied on psychody-
namic theories." The unavoidable issue is that one must
have a well defined, concrete concept before one can estab-
lish meaningful indicators of that concept. Since psycho-
dynamic models of human behavior consist only of reified
constructs, the degree of psychodynamic influence present
in the current conceptions of child maltreatment has tended
to restrict the definitional process, and hence dominate
classification.
Now that classification of potential maltreatment cases has been established as problematic for protective service workers (Rosen, 1981), it is only reasonable to expect that development of a standardized instrument, a decision aid, would be seen as desirable by the practice community. During the past fifteen years there have been several attempts to develop instruments for the purpose of measuring the presence or absence of maltreatment, or the degree to which maltreatment is present. The Living Conditions Rating Scale (Oliver and Butler, 1979), INCADEX—or the indicator checklist—(Coombes, et al., 1978) and the Childhood Level of Living Scale (Polansky, et al., 1972) are examples of such efforts.

Polansky and his associates have been the most persistent advocates of such an enterprise, having worked and written in connection with the Childhood Level of Living (see Appendix A) instrument since 1968 (Polansky, et al., 1968, 1972, 1975, 1978a, 1978b, 1979, 1981, 1983a, 1983b). Additionally, all of the Polansky work has been premised upon the use of a psychodynamic model to explain behavior, and has accordingly sought to identify types of sick or disturbed mothers as a means of explaining maltreatment.

In consideration of issues discussed in prior pages, movement towards the use of standardized instruments would
appear premature, particularly where constructed around psychodynamic models. Because of these concerns, the efficacy of using standardized instruments for classification by protective service workers will be one of the two focal issues addressed by this study.

The specific point at which decision making in children's protective services is most problematic is at the time a complaint is initially investigated. The decision environment for such investigations is typically much less than adequate. Therefore, a standardized instrument might potentially serve as a decision adjunct for investigators. Levitt and Reid (1981) discuss the potential utility of using "rapid assessment instruments" in social work practice. They argue that "the most important consideration in evaluating a rapid assessment instrument is to determine its capacity to generate reliable, valid, sensitive measurements" (p. 16).

DIFFERENT THEORIES, DIFFERENT MODELS OF CAUSATION

Numerous studies have been conducted that establish covariation between individual variables and the presence or absence of child maltreatment. However, since covariation is not synonymous with causation, Kaplan's (1964) requirement that interrelationships between and among indicators be precisely explained tends not to be fulfilled.
Although some efforts have attempted to fill this knowledge void (i.e., Giovannoni and Becerra's (1979) use of discriminant analysis to determine factors that differentiate between maltreating and non-maltreating families in a multivariate context and Seaburg's (1980) analysis of simple causal models), they are almost universally flawed by measurement problems, limited scope of variables, and other methodological difficulties. As a result, there has been to date no causal investigation that examined the range of factors discussed in the literature.

**Research Tasks**

To address the issue of standardized assessment, this study will gather data from actual case investigators concerning potentially observable problems and situations. These problems and situations will be much more general and much more likely to be observable by an investigator than those included in such instruments as Polansky's. The same list of problems and situations will later be rated by ongoing caseworkers for the same cases.

These data will be analyzed to determine the extent to which the investigators' assessments agree with the more extensively informed ongoing worker. From this analysis some insight concerning the reliability of assessments at intake will be drawn. If this analysis indicates poor
reliability for item assessment at intake, the findings will be used to support the assertion that using standardized instruments to aid in protective service investigations is not justified. If, on the other hand, an acceptable measure of reliability is demonstrated, then further analysis would be performed to highlight those maltreatment areas that yield the highest reliability.

For its second focus, this study will attempt to deal with the problem of competing theoretical conceptions of maltreatment and causal analyses employing too few variables by gathering extensive case information and using that information to assess the various causal models suggested by the different theoretical conceptions. Path analysis will be employed to test the theoretical models identified. This will be done for the total group of cases and for abuse and neglect cases separately.

**IMPORTANCE OF STUDY TO SOCIAL WORK**

This study's findings will potentially be of value for social workers in children's protective services. The desirability of a standardized assessment instrument is high, while at the same time there is little likelihood that such an instrument can be constructed to meet minimal criteria of acceptability. Therefore, the analysis of the reliability of observations and assessments made during
necessarily hurried investigations should demonstrate the prudence or imprudence of pursuing such efforts, given the existing state of knowledge and theory pertaining to child maltreatment. An inability to demonstrate reliability would be significant. If reliability is low, validity must also be low given that reliability mathematically defines the upper limit of validity. Low validity would indicate that certainty over worker judgments as to whether maltreatment is present or not should be tenuous at best.

No single study, or in fact no group of studies, will likely influence practitioners to change their theoretical perspective of human behavior. However, practitioners might be persuaded either to expand or redirect their focus with respect to what factors they believe to be important in maltreatment causation, and hence treatment. The second focus of this study will be an analysis of the explanatory ability of the causal models suggested by the four general domains of theory discussed. This analysis may demonstrate where, in a causal framework, the factors presently cited in literature as causing maltreatment best function. This information could also aid in clarifying concepts and by suggesting appropriate interventions, as well as informing primary prevention efforts and policy relative to child maltreatment.
Chapter II
LITERATURE REVIEW

The following literature review will elaborate upon the four areas of theory discussed in the introduction. The support for causal and correlational factors identified by each of these four areas will be examined for guidance in the selection of items to be used in both the assessment of judgment reliability and the causal models. Findings from various studies will be presented to highlight the similarities and differences in factors found to be associated with child maltreatment.

Polansky has pursued the development of standardized instrumentation in the area of child maltreatment more persistently than any other individual this author has identified. His instrument provides an ideal foil against which to examine issues surrounding assessment instrumentation. Because of this, his studies and instrument will receive particular attention with respect to the issues inherent in the development and use of a standardized assessment instrument in children's protective services.
The literature addressing interrater reliability of social work judgments is virtually nonexistent. The topic of reliability, to the extent it is addressed in connection with social work practice, focuses upon the reliability of multi-item scales or indexes, and not upon decision consistency between workers. Due to the paucity of material, this topic will not be discussed beyond the sources noted in Chapter I.

THEORETICAL PERSPECTIVES ON MALTREATMENT

Siporin (1975, p. 92) notes "marked fluctuations in theoretical orientations with the development of social work knowledge." In a 1959 literature review, Kadushin identified an "almost exclusive dependence on psychoanalytic psychology" in social work's knowledge base (Kadushin, 1959, p. 39). More recently, Bartlett (1970) notes an expansion of social work's theoretical base. Nevertheless, Sweet and Resick (1979, pp. 42-43) conclude from their review that "most of the literature on child maltreatment has been influenced by psychodynamic concepts," and consequently "has attempted to describe the maltreating parent in terms of personality types and traits" (p. 41). Following is a discussion of psychodynamic theory, as well as the other three domains of theory identified by Sweet and Resick as they apply to maltreatment.
Psychodynamic Models

Psychodynamic models view all or the majority of human behavior as resulting from internal causation: drive energy arises from "id" impulses, is modified by the "superego" and the "ego," and culminates in observable behavior (Brenner, 1974). Healthy behavior is believed to be contingent upon the proper balance of influence among these intrapsychic entities. Therefore, unhealthy or pathological behavior results from an imbalance in this "psychic system." As a result, persons granting validity to such models for an explanation of human behavior need to look no further than the individual manifesting problems to explain cause: if behavior is a problem, the cause and the focus for intervention is the individual mental condition. Although some formulations using a psychodynamic basis have allowed for limited environmental causality, such factors are typically represented as triggering mechanisms for personality flaws that had been manageable prior to the added environmental stress (Polansky, Chalmers, Buttenwieser, and Williams, 1979, pp. 167-174).

Gaines et al. observe that there have been few rigorous studies of the veracity of intrapsychic causality with respect to maltreatment and that the preponderance of personality characteristics ascribed to maltreaters has been generated from clinical practice, not empirical research.
The Gaines study examined a number of intrapsychic factors as well as environmental stress factors. A discriminate analysis was performed to determine which factors, if any, could distinguish between maltreating mothers and normal mothers. Results indicated that environmental stress accounted for the most discriminate variance. However, all six factors that loaded significantly on the two derived functions, including three measures of psychological functioning, only accounted for 12 percent of the discriminate variance. The derived model managed to classify only 49 percent of study cases correctly, thus discriminating about as well as a tossed coin.

Significantly, Gaines et al. (1978) note in their discussion, "that maltreatment can be primarily attributed to child-rearing attitudes or an 'abuse-prone' personality is seriously challenged by the results because of the relatively trivial contribution of these variables" (p. 538). Their study used a balanced design for group comparisons, and employed standardized scales to measure psychological functioning and other personality measures. Since these measures demonstrated reliability within the study and had been supported in the literature, the Gaines findings would tend to throw a pall of suspicion over much of the psychodynamically based conceptions addressing maltreatment.
Psychodynamic Constructs as Indicators of Child Neglect

In a discussion addressing the use of indicators wherein the United States economy was offered as an example, Morrison (1982) observes that "the health of the economy is not only measured by these indicators; it is largely defined by them" (p.5). Pointing to the circularity in the logic of such circumstances, Morrison goes on to suggest that "these indicators often assume an importance at least as great as that of the abstraction they are supposed to quantify" (p.5). Babbie (1970) also addresses this issue at length, referring to it as the process of "conceptual entrapment."

This type of problem tends to pervade the range of social science inquiry. In using observed "symptoms" as indicators of internal states, which are only accessible via the observed symptoms, psychodynamic models are very vulnerable to this sort of circular logic: once the basic premises are accepted, there is no empirical way by which the logic structure can be contradicted.

Szasz (1973) contends that once an individual is determined to be mentally ill (labeled), that individual is then, by definition, suffering from mental illness. Therefore, depression observed among individuals labeled as child neglectors permits the implication of a depressive personality factor in the occurrence of child neglect.
Gelles (1973) asserts that "this type of analysis does not distinguish the behavior in question from the explanation" (p. 614).

Another difficulty with the models constructed by those espousing intrapsychic causality is the nonrandom processes generally used to collect foundational data and the number of cases from which data is gathered. In what Polansky terms "an intensive pilot study," data collected from ten cases were used to form the basis of his thinking concerning the nature and cause of child neglect (Polansky, Borgman, and DeSaix, 1972). Gelles (1975, p. 365) indicates a similar difficulty with the work of Helfer and Kempe, noting that "the factors which caused patients A, B, C, D, etc. to end up in Colorado Medical Center and then be labeled as cases of abuse were confounded in... (any resulting)... causal explanation of abuse."

The conclusion to be drawn concerning psychodynamic constructions is that they should figure minimally into any effort to construct an indicator instrument or causal model addressing child neglect. At best they could be considered only one of many possible causal elements: they offer neither a necessary nor sufficient explanation of child maltreatment in general. This conclusion is in no way an attempt to deny any validity for all past studies that have attempted to employ psychodynamic constructions. However,
the virtually universal inability of such studies to do anything other than retrospectively describe using the interpretations of experts as data is a sufficiently potent criticism to justify strong skepticism.

A further consideration is presented by Alvy (1975). He suggests that, even if such models were more amenable to empirical verification, basing interventive and preventative strategies on such concepts or personality tests would raise significant moral and legal issues with respect to false positive indications. The problem presented by such use would be the separation of pathological maltreators from the pathological but nonmaltreating parents.

Social Learning Models

Social learning theory as articulated by Bandura (1977) synthesizes the behavioral principles of Watson (1924) and the interactionist tenets of Mead (1934). Social learning theory, as the name would suggest, portrays human behavior as primarily the result of learning. Unlike more rigidly behavioristic conceptions, social learning theory posits that individuals in most cases select their response from a number of possible responses to a given stimulus based upon the perceived likelihood of an individually defined, desirable outcome linked to the particular responses. The probable likelihoods are established for individuals by way of direct experience, observational
learning, and intellectual extrapolation. As a result, social learning theory represents child maltreating behavior as being a "learned pattern of interaction" (Sweet and Resick, 1979, p.48). Unlike intrapsychic models, social learning models afford a more promising and optimistic view for intervention: if maltreating behavior is in fact a choice that reflects a parent's view of the best behavioral alternative based upon prior learning or reasoning, then parents need only to be taught different, more appropriate child care behaviors and be made to believe that these new behaviors are of higher value than maltreating behaviors.

Although the hypothesis that maltreatment is a multigenerational phenomenon (a hypothesis widely stated in maltreatment literature) has generally not been supported by empirical evidence (Jayaratne, 1977), the principles of social learning theory would lend support to such a hypothesis. In his literature review, Jayaratne found that "parental inadequacy and misinformation" were the two most frequently presented factors contributing to child maltreatment (p.8). The viewing of misinformation concerning appropriate child care as the result of faulty learning, or the correct learning of bad information, is highly consistent with a social learning model.

Sweet and Resick note that social learning theory's methodology is potentially useful for maltreatment research
in that it requires careful and systematic observation of individuals' interactions. Aside from the examination of the multigenerational hypothesis, social learning theory constructions have not been widely used to guide studies of child maltreatment. While the use of behavioral observation, offers considerable promise for testing hypotheses that address learned behavior as a basis for maltreatment, designing a study wherein this is possible presents great difficulties.

Variables examined from a social learning perspective are the same as those examined by intrapsychic models—specific human behaviors. However, while intrapsychic approaches view behavior only as indicators of inaccessible psychic states, social learning theory views behavior as the end product of individual learning and choice. Behavior has meaning in and of itself.

**Sociological Models**

"Sociological theories of child (maltreatment) emphasize social factors as primary causes. These factors include the social characteristics of perpetrators and victims, and the situation or context of (maltreatment)" (Sweet and Besick, 1979, p.48). The perspective could also be viewed as an environmental approach to explanation. Gil (1971) has been a proponent of such a model. Gil cites five levels of factors connected with maltreatment ranging
from the most global cultural influence to the microcosmic "bio-psycho-social functioning in children, parents and family units involved in child maltreatment" (Sweet and Resick, 1979, p.51). Similarly, Giovannoni (1971) suggests that child maltreatment at the individual level only reflects the reality of a society indifferent or hostile to the poor.

A considerable amount of research has been focused upon the relationship between economic status and maltreatment. Pelton (1981) argues against the popular notion that child maltreatment is a classless phenomenon. A comparative study between maltreating welfare recipients and a random sample of non-maltreating welfare recipients found that maltreating families lived under comparatively poorer circumstances than non-maltreating families; these were the poorest of the poor (Solock, and Horowitz, 1979). Pelton also notes a number of poverty-related factors that create individual and family stress, and which could be considered as causal agents in maltreatment from the sociological perspective. "Such poverty-related factors as unemployment, dilapidated and overcrowded housing, and insufficient money, food, recreation, or hope can provide the stressful context for... (maltreatment)" (Pelton, 1981, p.34).

Pelton (1981) discusses the intriguing notion that children living in impoverished conditions are at much
greater risk of harm given a particular level of parental inattention or irresponsibility than are children from non-impoverished homes given the same degree of inattention. He writes: "The context of poverty multiplies the hazards of a mother's neglect. Thus poor people have very little margin for irresponsibility or mismanagement of either time or money" (ibid., p.34). Horowitz and Wolock (1979) additionally indicate that caretakers living in more deprived circumstances had more health problems, a factor that would only serve to exacerbate an already stressed family situation.

In considering "the myth of classlessness," a position generally supported by adherents to psychodynamic explanations of maltreatment, Pelton (1981, p.37) offers: "The myth of classlessness persists not on the basis of evidence or logic, but because it serves certain professional and political interests." Similarly, Scheff (1975) suggests that individual pathology as the cause of deviant behavior is a socially acceptable hypothesis since it calls into question nothing fundamental about social organization and institutions.

It is not the case, however, that all persons operating from a psychodynamic paradigm ignore social/environmental factors. As noted earlier, many in fact do attend to such factors. But, rather than being viewed as
causes of maltreatment, these factors tend to be cast as yet other consequences of individual pathology, or as stresses that overwhelm a marginally pathological personality that would be able to cope in their absence (Polansky, Borgman, and DeSaix, 1972).

Social Psychological Models

"Social psychological theories focus on the interaction between individual characteristics and environmental factors in accounting for human behavior" (Pelton, 1981, p.49). Such formulations would seem to provide the most prudent basis for casework practice and research focusing upon maltreatment, given the indefinite nature of the existing knowledge base, since the scope of factors is not constrained. Gelles (1975) details a multifactor theory that literally embraces psychological factors, learning considerations, social factors, and aspects of the immediate family environment as all being potentially causal. The operative concept in Gelles’s model is that any individual factor or cluster of factors is sufficient to cause maltreatment, but that no individual factor represents a necessary condition for maltreatment to occur.

This perspective allows for the examination of other factors that have been discussed in the literature, such as those suggested by Friedrich and Boriskin (1976), they note that children with physical handicaps, the mentally retard-
ed, and even children who were premature at birth are disproportionately represented among the maltreated. The social-psychological model can incorporate such factors as potential causes.

**REVIEW OF POLANSKY'S INSTRUMENTATION WORK**

Polansky and his associates are not the only researchers to approach the task of constructing an index or indicator list for the purpose of assessing child maltreatment. Coombes and her associates have constructed an abuse and neglect indicators index (Coombes, et al. 1978). The Coombes instrument is a 134-item checklist. There is no reporting of reliability and validity data by the authors, and so it must be assumed that such research has not been accomplished. Further, per this author's literature review, the Coombes instrument has received no attention from either other researchers or practitioners.

The work of Polansky, however, is often cited, and his instrument, the Childhood Level of Living Scale (see Appendix A), is being used in practice settings. It is the presence of substantive questions about this instrument that has provided the impetus for the examination of the efficacy of attempting to develop and use such an instrument in connection with child maltreatment.
The foundational work for Polansky's thoughts concerning the measurement of child neglect was presented in a 1968 article detailing a pilot study that derived personality profiles for "inadequate" mothers on the basis of interviews and tests administered to ten white mothers from rural, southern Appalachia (Polansky, DeSaix, and Wing, 1968). Using the data from these ten case studies, information derived from two groups of nonrandomly surveyed child welfare workers and a psychodynamic model of behavior, Polansky and his associates constructed and published The Childhood Level of Living Scale (CLL), The Maternal Characteristics Scale (which includes The Apathy-Putility Scale, The Impulse-Ridden Scale and The Verbal Accessibility Scale), as well as other instruments (Polansky, DeSaix, and Sharlin, 1972). In that the CLL included many items such as "home lighted by kerosene lamps," the scale was "adapted" to an urban setting in 1978 (Polansky, Chalmers, Buttenwieser, and Williams, 1978). More recently, the scale has been published by the National Center on Child Abuse and Neglect as part of "The Users Manual Series" (Polansky, Hally, and Polansky, 1978).
A LITANY OF PROBLEMS

Pragmatic Considerations

The ultimate goal in the development of any instrumentation should be utilization. The Polansky CIL is usage-prohibitive on several points. Typically, a child welfare worker must investigate a neglect complaint and make a determination as to its validity within one day. Such a condition would seem to militate against a lengthy instrument that requires a high degree of cooperation on the part of the family being investigated, that is effective for only a very limited age range, and that would rely heavily on self-reported data to determine a mother's mental health and the quality of mother-child interaction. However, the CLL possesses all of these characteristics.

It is 99 items long and set up in checklist fashion. Many items such as "Child is immediately spanked for running into street," "Child is taught to respect adults," "Parents guard language in front of children," "An effort is made to provide choices for the child," and "Child is encouraged to care for own toys" would out of necessity demand total reliance on cooperation from the parents. Such reliance, of course, implies that responses to questions are subject to purposeful misrepresentation and/or error of recall or expression. This constitutes a reliability issue, which by definition creates a validity issue.
Similarly, concerns for validity arise with respect to such questions as "Child has been taken by parents to a carnival," "Family owns a camera," "Child has been taken fishing," and "A play shovel is available to the child" (Polansky, Chalmers, Buttonwieser, and Williams, 1978, pp.A-6 - A-8). Whether or not such items actually measure neglect is never adequately addressed. Also, to help ensure cooperation necessary to aquire such information for many of Polansky's studies using the CLL, respondents have been consistently paid for their cooperation with the burdensome instrumentation. The bias potential of such a methodology has not been addressed in these studies.

**Value Contamination**

Middle-class values represent only one of the many competing systems of values in the pluralistic society of the United States. This is a reality that Polansky and his associates have noted. Nevertheless, in one study, findings claim to have revealed that social workers, middle-class mothers, and working-class mothers all reflect middle-class values in their definitions of adequate child care (Polansky and Williams, 1978). There are two problems with the conclusion that a lack of statistically significant differences among these groups supports the usage of middle-class values (i.e., the items used in the CLL) in the determination of child neglect.
First, all of the mothers involved in the study were white; hence, there was no way to ascertain whether or not hispanic or black mothers, to note just two minority populations, are in fact identical in value orientation to white mothers. This would be a conclusion few people should feel comfortable drawing, given data so limited by sample size and scope.

Secondly, data cited previously indicate that, for the most part, neglecting mothers are poor, in fact the poorest of the poor, and not working or middle class. Hence, there is another implicit assumption that middle-class values and those of the poorest of the poor are also identical. One might strongly contend that both of these assumptions represent conclusions that have been drawn beyond the scope of available data.

In his most recent published study, an attempt was made to address such criticism (Polansky, Ammons, and Weathersby, 1983). Using some old data and collecting some new data to fill a 2x2x2 design (working and middle class, urban and rural location, and black and white individuals), these researchers still failed to include value assessments for the group Pelton refers to as the poorest of the poor.

Once again, definitive conclusions seem to have been gleaned from very equivocal findings. For example, black mothers were found to differ from their white counterparts
on such issues as the degree of neglect endemic to leaving a child alone in the home, and not planning a daily meal of at least two courses. Nevertheless, the assertion was made that "although the black respondents differed slightly more often with CLL authors than did the white respondents, the predominant impression is of agreement on the 'gut issues' tapped by the CLL" (Polansky, Ammons, and Weathersby, 1983, p. 344). Considering that the largest class of neglect complaints concern child supervision, and that nutritional concerns also figure prominently in neglect reports, this is, indeed, a dubious conclusion.

**Methodological Considerations**

As indicated earlier, the foundational work for all four neglect typologies, theoretical constructs, and the CLL itself derives from the 1968 case study of 10 rural, white, southern Appalachian women. The next significant study is detailed in the Roots of Futility (Polansky, Borgman, and DeSaix, 1972). Methodologies employed in this study are typical of those used in all of the Polansky studies of neglect.

Cases for this study were solicited from all four program centers for the Head Start Program in one rural Georgia county. Sixty-five families were ultimately included in the study. Based upon his interpretation of income data for the group, Polansky felt sufficient confidence to
assert that "we had a sample unusually representative of the 'self-supporting poor,' in our section" (ibid., p. 98), although an empirical rational for this confidence was not presented. The CLL administration and psychological testing of all 65 mothers were performed by two workers.

While the authors acknowledged that "doubts have been raised about the validity of psychological tests when applied to persons from lower socioeconomic strata," these doubts were waived, not to be considered again, with the claim, "we were faced with no trustworthy alternatives" (ibid., pp. 102-103). Further, there was no attempt to examine the internal consistency of any of the measures employed, including those developed by the research team.

Also, for those cases where interrater reliability correlations were not "acceptable" for judgments made by the two workers gathering the data, case ratings were negotiated between the two data collectors. The worthiness of the measurement instrument for performing the desired assessments was not questioned. Neither was consideration given to deleting those cases yielding poor interrater reliability from the analysis. Lastly, the writings never indicate that the possibility of bias resulting from such negotiations was addressed as a concern.

Potentially the greatest criticism of the CLL, given that it is intended to be used as an empirical guide in the
finding of neglect cases, is that it has never been sub-
jectred to a rigorous cross-validation wherein its ability
to predict yet unknown cases could be determined. All
attempts to examine predictive efficiency have been per-
formed on previously identified groups of neglecting fami-
lies as contrasted with a nonrandom, paid group of families
not labeled as neglecting that were solicited via newspaper
advertisements. With particular reference to this type of
"control group," Sweet and Resick (1979, p.54) argue that
"ad hoc samples treated as control groups are likely to
differ in many culturally and individually relevant
ways... (from those labeled as maltreating)." Campbell and
Stanley (1963) also offer warnings about the reliance upon
nonequivalent control groups in the assessment of cause.
Although Polansky et al. (1979, p.169) asserts that "the
comparison of control and neglect families demonstrates its
(CLL) validity," it in fact demonstrates, somewhat tenuously-
ly given the nature of the "control group," only one of the
three types of validity (postdiction or discriminatory
validity) detailed by Nunnally (1978). When the potential
for value bias and the lack of reliability assessment men-
tioned earlier are taken into consideration, claims of
validity appear to fall short of justification.
Statistical Considerations

Statistical significance is a probabilistic criterion employed for the purpose of making decisions concerning the results of statistical tests. For statistical significance to be used in the evaluation of statistical findings, certain explicit conditions must be met. The most critical condition is that the data upon which a statistical test has been used must have been derived from a random sample, drawn from the population to which a researcher wishes to infer the results of the test (Hayes, 1973). In the absence of a random sample, or if the random quality of a sample is corrupted by nontrivial proportions of missing data for specific variables, statistical significance becomes meaningless and generalizability of test findings is not justified. Results from statistical tests on data that cannot meet the random criterion only have meaning within the context of the cases from which the data were obtained. When statistical significance is used in connection with nonrandom data, the burden is on the author/researcher to justify why a given nonrandom sample can rightfully stand as a proxy for a truly random sample.

Throughout all of Polansky's child neglect studies, "purposive" samples, samples of convenience, have been used with no reasoning being offered for their acceptance as random proxies. Also, throughout all of these studies,
statistical significance has been used as the decision criterion to determine group differences and the presence of association. Quite simply, such probabilistic decisions are not justified given the characteristics of the samples, and that lack of justification further undermines the claims of validity that are based upon such findings.

There is also a potential problem with the statistical procedures used in these studies. ANOVA is consistently used to test hypotheses. There is considerable diversity of opinion as to the applicability of tests employing least squares procedures on clearly ordinal data, particularly when the range of ordinal variation is quite limited (four or five positions, or less). An examination of the literature reveals a tendency for the more conservative position to be taken by mathematically grounded statisticians and for the less restrictive position to be taken by social scientists not-so-well grounded in mathematics who have a statistical package at their disposal and data to analyze (Foulk, 1980). Arguments for using least squares procedures on ordinal data, where presented, are usually couched in a "these folks did it, so I am therefore justified in doing it, too" argumentative form, and not on mathematical grounds dealing with measurement issues such as scaling and equity of units. No reasoning is presented in any of Polansky's numerous publications involving the CLL for the
applicability of statistics used to the type of data available.

As Rummel (1970) notes, factor analysis is not so much a statistical procedure as it is a rubric for a number of somewhat similar procedures. Consequently, evaluation of factor analytic results is not necessarily a straightforward task. While Polansky indicates that the elements of the CLL were derived from a factor analysis for the urban scale, the only technical information presented was that "each item detailed...had to form part of a cluster of sufficient demonstrated 'weight' (i.e., eigen value) to remain in the scale" (Polansky, Borgman, and DeSaix, 1972, p.441). Needed, but not presented, were the factor loadings, factor eigen values, and an indication as to the type of rotation, if any, employed. Without this information, it is impossible to tell how much total variance across all variables factored was accounted for by the derived factors, which items weighed most heavily in the structure of individual factors, and whether the factors extracted were independent (orthogonal rotation) or correlated (oblique rotation).

There are other issues left unresolved. For example, if an orthogonal rotation was used (which is most likely the case since interfactor correlations were not mentioned), then all factors derived would have intercorrelations of zero. This being the case, the claim for directly
additive unidimensionality, upon which the CLL is based, would be suspect. If an oblique rotation had been used, the structure of interfactor correlations would need to be explored for confounding collinearity.

**Weighting Considerations**

Although the instrument is referred to as a scale, it is in fact a simple additive index. When constructing an indicator index, an issue that should be addressed is item weighting. A value of either one (1), indicating the presence of a condition, or zero (0) is assigned to each of the 99 items that make up the CLL. Although such an approach eases the task of totaling scores as opposed to, for example, using factor score coefficients, it is debatable whether one should weight "A play shovel is available to the child" equal to "Mother has evidenced lack of awareness of child's possible dental needs." To the extent that various items differentially indicate neglectful circumstance, while they in fact are equally evaluated with respect to a total score, the scale misrepresents the true degree of neglect present, all other things being equal.
SUMMARY COMMENTS ON POLANSKY'S WORK WITH CLL

The preceding pages have directed serious and substantial criticism to the efforts of Polansky and his associates in connection with their research on child neglect. Issue has been taken with conceptualization, methodology, execution, and interpretation. This author acknowledges that the harsh realities of carrying out a research endeavor often necessitate notable deviations from the strictures put forth in methodology and statistics textbooks. Methodological compromise is a matter of degree, and to a degree, reasoned (compromise and the less-than-perfect results it provides) is a better option than never conducting research in difficult circumstances. However, given the extent of the problems found in the fifteen-year history of this particular research enterprise, the critical commentary is not deemed excessive.

All of Polansky's work has been based upon psychodynamic constructs, and as such always proceeds in an attempt to identify types of neglecting, therefore sick, mothers. Of the theoretical domains discussed by Sweet and Resick (1979), the psychodynamic models of human behavior were identified as the least justified empirically and the weakest for providing guidance for empirical research. This problem, combined with the extensive methodological and statistical problems, all of which are exacerbated by over-
zealous interpretations and conclusions drawn in the absence of empirical support, should engender considerable unease for any protective service personnel using or considering the use of the CLL.

**AN EXAMINATION OF CAUSE**

"It is very tempting to conduct exploratory studies to discover differences between groups of maltreating and normal treating parents. But it is a logical error to interpret obtained correlations as the 'cause' of maltreatment" (Sweet and Resick, 1979, p.54). Kaplan (1964) and Kerlinger (1973), as well as numerous others, admonish researchers as to the misadventure of presuming correlation to be equivalent to causation. Nevertheless, virtually all studies that have employed any order of comparison group have proceeded from statistically significant differences and correlations to the imputation of cause.

As Sweet and Resick (1979, p.54) observe, "at best, research (concerning child maltreatment) has been conducted ex post facto." This is not so much a criticism as it is a statement of the inevitable. Although not methodologically impossible, it would certainly be cost-prohibitive to conduct a large panel study to closely follow families prior to an incident of maltreatment so that less equivocal assessments of cause could be established.
An acceptable alternative to obtaining such panel data is to analyze ex post facto data by means of a special application of multiple linear regression—path analysis. Path analysis provides for solving a set of structural equations wherein time-ordered relationships are specified by either logical temporal order or theory, and correlation exists between variables to be placed within the system of equations. It is important to note, however, that path analysis does not imbue ex post facto data with a capacity to address cause equal to that of panel or experimental data (Blalock and Blalock, 1968). A path analysis can determine whether or not data are consistent with the specifications of a particular model, but cannot explicitly determine that a specified causal agent in fact precipitated a given outcome (Heise, 1975).

Although limited in this way, path analysis can be a valuable research tool. For child maltreatment, as with most phenomena in the social sciences, a multiplicity of theoretical conceptions exist in literature. While the application of path analysis to data will never be able to demonstrate which theoretical model is correct, such analysis can demonstrate which ones are not. Where the inability to address cause has very pragmatic consequences (such as in the case of maltreatment), and the need to take action is unavoidable (as in protective services), being
able to pare down the field of theoretical conceptions could potentially be of great service.

Seaburg (1980) is the only researcher identified by this review as having attempted such an analysis. Using data from Gil's (1970) national sample of maltreatment incidents, Seaburg performed a series of path analyses to test the more dominant conceptions of maltreatment causation. There are several significant problems with this work, however. Although the significant proportion of maltreatment cases involve child neglect, Gil's data concern only child abuse. Therefore, the analysis is irrelevant to the vast majority of maltreatment cases except for individuals who favorably entertain the hypothesis that neglect and abuse are different manifestations of the same problem. The other concerns cover problems with the sample used by Gil, reliability and validity of indicators used, and level of measurement for both independent and dependent measures.

This study will expand upon the work of Seaburg in that models will be tested for both child abuse and child neglect, as well as for the groups combined.
Chapter III
METHODOLOGY

DESIGN

The research design employed by this study is ex post facto. As Kerlinger (1973, pp. 379) notes, "ex post facto research is systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable." Although experimental and quasi-experimental designs afford better variance control and thus permit less equivocation in the interpretation of findings, such designs are impractical for research problems such as child maltreatment.

Since child maltreatment is not a treatment variable in the classic experimental sense, there exists no possibility for random assignment to groups such as maltreating and not maltreating. Further, gathering data before the maltreating event would require casting a rather large net in the hope of ultimately having enough maltreating subjects emerge to enable a meaningful analysis.
This approach has been attempted. Hunter et al. (1980) collected a wide range of data for 282 newborns at a North Carolina hospital and their parents during a one-year period. Study staff then monitored investigations by the county department of social services for an additional year so as to detect incidents of maltreatment involving any of the study children. This design offered distinct advantages to an ex post facto design. However, the impracticality of the design was made obvious in that only 10 children from the 282 were identified as being maltreatment victims in the study period—a number inadequate for statistical analysis given that explanation, not rate estimation, was the goal of the study.

UNIT OF ANALYSIS

The unit of analysis for this study was the family unit wherein an incident or incidents of child maltreatment had been detected by public protective service personnel. The family, rather than the child, was chosen for two reasons. First, protective service records in Ohio, the geographic location of the study, are indexed by family rather than by victim. Hence, collecting data and tracking cases by family were deemed to be less troublesome to the agency personnel involved in the study than any other alternative. More important, the significant questions of this study
having to do with cause required a family level analysis. Further, collecting family rather than victim data eliminated the potential for multiple observations of an individual family.

**Sampling Procedures**

One of the significant criticisms of research in the area of child maltreatment is that data are often collected from only one or a few sources in a limited geographic area (Plotkin, et al., 1981). To minimize problems of generalizability, this study attempted to include cases from as many counties as were economically feasible given a limited budget. It was estimated that sufficient funds existed for collecting information on 600 families.

**County Sample**

Another concern addressed in the early sampling strategy was that too often data for maltreatment studies, aside from being narrow in geographic scope, represented only urban catchments. Since generality of findings was an important goal for this study, efforts were made to include rural and part-rural, part-urban counties along with the urban ones.

The specific sampling procedure for the counties was purposive. Although a randomized selection process would have been vastly preferable, it was not deemed feasible.
Since the actual data collection involved the voluntary cooperation of the county protective service staff, the best random selection process would have been corrupted by those counties opting not to participate. Therefore, counties were asked to participate in accordance with the following criteria:

1. the total group of counties would be geographically spread across Ohio as randomly as possible;
2. the total group would provide a balance of cases across urban, part-urban and part-rural, and rural counties; and,
3. spacing of counties geographically would be such that travel from Franklin County, the county from which the project was managed, would be minimized since considerable travel to and from counties would be necessary.

With these criteria in mind, a three-page project prospectus with a cover letter signed by a professor from the College of Social Work at the Ohio State University was sent to protective service agency executives in 28 counties (see Appendix B for prospectus and letter). As was indicated in the letter, a follow-up telephone call was placed to each county executive within 7 to 10 days after the material was mailed. During the telephone conversations, further elaboration as to the nature and intent of the study was offered, as well as an assessment of the likely burden upon protective service caseworkers.
Of the 28 counties contacted, two declined to participate outright. Additionally, two counties tentatively agreed, but decided not to participate after a presentation of the study in a meeting with workers and supervisors. Further, one county was deleted from consideration due to concerns about the ability of the agency staff to perform data collection adequately.

Two of the rural counties were deleted after the data collection had commenced. The head of one agency retired early in the data collection period, and while the individual who filled the position stated a willingness to continue, that commitment was sufficiently equivocal to warrant the county's deletion from the sample. The second deletion occurred because only one caseworker handled protective services cases for the county, and this worker persistently put off completing study instruments. As a result, the final sample consisted of 21 counties, which represents 24 percent of the counties in the state, and 75 percent of the counties originally solicited.

Using a classification system for county size developed by the Ohio Department of Health (Puckett, 1979), the sample included:

- 2 large urban counties,
- 6 part-urban and part-rural counties; and,
- 13 rural counties.

A detailed list of these counties can be found in Table 1.
Family Sample

The major concerns in settling on a sampling strategy for study families was that generalizability from sample data should be maximized, while at the same time agency burden would be minimized. To provide for representation across counties of differing size, it was decided that the urban counties would provide 150 cases each, the part-rural and part-urban counties would provide 25 to 50 cases each, and the rural counties 10 cases each.

Random selection of subjects from each county was found to be impractical and might have resulted in some counties withdrawing from the study. Thus each agency was assigned to fill a quota, dependent upon county classification, with all new maltreatment cases as they presented themselves during the data collection period. Therefore, once a case met the definition of eligibility for the study, it was included until the agency quota had been met. Since the data collection period for the counties ranged from four to nine months, the damage to generalizability because of the use of this type of nonprobability sample rather than randomization should have been minimized. In essence, study cases represent population data for maltreating families in the study counties for a period averaging six months. This study proceeds upon the assumption that the population of cases for the data collection period
represents a cross section of all cases presenting themselves to the included agencies.

Study plans had originally called for the comparison of the characteristics of study cases with the characteristics of cases from prior years both across and within counties. This was to be accomplished by using data supplied by each county for all maltreatment investigations to the Ohio Central Registry of Child Protection. While initial inquiry indicated that such a comparison would likely not be problematic, later efforts in this regard proved quite the opposite. It was finally determined that the central registry was, and remains still, a manual system. Although there were indications to the contrary, the information has never been computerized. As a result, tests to determine the degree of fit between study cases and cases historically handled by the counties are not possible at this time.

Who Was Included: Defining Maltreatment

As discussed in Chapter I, there is no generally accepted, specific definition of either child abuse or neglect. Dingwall and Eekelaar (1980) observe that "the character of the problem of... (maltreatment)...depends on some set of ideas about what childhood ought to be like," and there is no consensus of ideas.

While the Ohio Revised Code, Section 2151.03 details the legal elements of both child abuse and neglect, this
delineation is so vague as to be not clearly instructive except for extreme cases, and is particularly vague for child neglect. The nature of this complication is explained by Nagi (1977):

"Cases close to the two ends of any continuum are readily identifiable; toward the middle of the continuum, however, there is always a doubtful area. The area of doubt seems especially large in regard to cases of child abuse and neglect. At the heart of the problem lies the question of when and in what forms maltreatment is to be considered...excessive" (p.20).

Besharov (1981) indicates that one of the problems endemic to maltreatment research has been the framing of studies around poor or idiosyncratic definitions of the problem. Sweet and Resick (1979) also discuss the varied manner in which problem definition has been addressed in literature. In considering this problem, it appeared that attempting to enforce a particular definition of the problem through the study would have been counterproductive.

The intent of the study was to examine a range of maltreatment severity, including cases from the least severe manifestation level to the most severe. Consequently, the cases that would inevitably fall into the "grey" areas between nonexistence of maltreatment and a severe maltreatment were of great importance to the study. Given that each worker participating in the study could have potentially viewed a study-dependent definition of maltreatment differently, even after training, it seemed that the best
identification criteria were the legal definitions and professional judgments as used by workers on a daily basis.

As a result, workers were instructed to select for inclusion in the study all cases that they defined as mal-treating in the ordinary course of case process. In essence, the study uses a "rules in use" approach to case selection (Hawkins and Tiedeman, 1975). Even though the actual selection criteria may vary over workers within a county, and further among counties, the presumption is that whatever variability so exists, it likely presents less bias than the uneven application of a unique, study-dependent definition.

Nature of the Sample

Of the 600 cases that had been originally planned, data were ultimately gathered for 491 cases. The sample that was carried into analysis was 472 cases. Nineteen cases were deleted due to extensive missing data or worker errors that were detected during quality control checking and were not possible to rectify. Thirteen of these were from the urban counties, four were from part-urban, part-rural counties, and the remaining two were from rural counties.

Whereas the total number of cases was about 20 percent less than originally projected, the proportional distribution across the three categories was very close to what
had been planned. The urban counties supplied 211 cases, or 45 percent. The part-urban and part-rural counties supplied 136 total cases, or 29 percent. The 13 rural counties supplied the remaining 125 cases, or 27 percent of the total sample. A listing of the cases provided by county can be found in Table 1.
INSTRUMENTATION

One large instrument was developed for the study. It was used in counties wherein the worker assigned to investigate a case would also become the ongoing caseworker if maltreatment was detected. In the six counties that had separate intake and ongoing staff, two instruments were cloned from the large one and were used to gather information applicable to the task of each worker. In such instances, a considerable amount of redundant information was recorded by both workers concerning the nature and extent of problems, as well as suspected causal factors. Also, both workers answered a set of overall assessment questions.

The redundant information provided the data upon which the reliability assessment of observations and judgments of the intake workers was based. The large, complete instrument can be found in Appendix C. The instrument used by investigative workers consisted only of Sections I and II of the complete instrument. The second cloned instrument included Sections II through V.

Discounting the redundancy, the instrument was comprised of five primary sections. The Section I recorded information provided to the State on the Central Registry form. This section was structured to resemble the registry form and used the same categories to minimize confusion and
worker effort. The information gathered by this section concerned the identification of the guardians, perpetrators, and children involved, as well as demographic information for each individual. The nature of the complaint received, referral source, and classification judgment were also included. In addition, this section collected considerable information concerning the specific type of problems observed, identified family stress factors, likely service needs, public assistance status, and employment status.

Sweet and Resick (1979) suggest that one problem in maltreatment research is that child neglect tends to be cast as a unidimensional phenomenon. To address this criticism the study instrument was designed to collect data concerning 10 different categories of neglect identified by Giovannoni and Becerra (1979), in addition to physical and sexual abuse. Questions addressing each of these 12 categories of maltreatment were assessed individually in subsections of Section II of the study instrument.

Each of these 12 subsections asked about 3 general types of problems found to be associated with a specific type of maltreatment in Giovannoni and Becerra's study (1979). There was also a fourth, catch-all item included in each section to assess situations that the worker felt should be considered under a specific type of maltreatment, but that did not fit any of the three general situations
specifically addressed. Where maltreating conditions were recorded for a section, a set of additional questions were presented that assessed the extent and severity of the specific problem(s) identified and the possible causes of the problem.

Also included was an overall assessment as to the nature and extent of the maltreatment in the family, type of intervention needed, and the likelihood that the family would respond to intervention. The assessments of the reliability of observations and judgments connected to the initial investigation used data gathered by this section. Both investigative and ongoing workers, in counties where these functions were separated, completed this section for each case.

The Section III gathered general information on the family, such as current living situation, the amount of employment and public assistance income, and types of public assistance and services, both received and needed but not received.

Section IV gathered a considerable amount of information on up to three adults in a family. The nature of the information varied widely. Basic demographic information was gathered, serving as a quality control check for information from Section I as well as elaborating upon the information in Section I. Employment and education level
were assessed, as were the levels of both physical and psychological functioning. A number of items addressed the issue of social isolation. The extent to which individual behavior and/or beliefs were influenced by religion and subculture was measured, as was the extent to which substance abuse was a problem.

The last section, Section V, gathered information on up to six children. In those families that had more than six children, workers were instructed to provide information on the youngest and oldest, and the four other children deemed most affected by the maltreating circumstances. Age, sex, and race were determined. Whether an individual child had been abused or neglected was recorded, as was school grade level and whether or not the child was having difficulties in school. Each child's level of psychological functioning was assessed. Also determined were children's physical difficulties in the first year of life and whether or not a child was having a problem with excessive crying, bedwetting, or unruliness at the time of the assessment. In those families that had more than six children, workers were instructed to provide information on the youngest and oldest, and the four other children deemed most affected by the maltreating circumstances.

The specific rationale and literature references for the inclusion of the wide range of variables addressed will
be presented in the section of this chapter concerned with measurement.

Administration

In all counties except two, training was provided at the agency for all protective service workers likely to complete an instrument. In the two counties in which training was not provided directly to the workers, the supervisors were trained in their stead, and they in turn trained the workers. Several counties required several, and in the case of one, many visits so that staff could be so trained. Specific problems encountered while completing study instruments were handled over the telephone as they arose, if a personal visit to the agency was not planned for any time soon after the emergence of the problem.

During these training sessions workers were familiarized with the nature and scope of the study, specific instrument items and the reason for their inclusion, and the procedures for managing missing or ambiguous data. Workers were encouraged to make telephone contact whenever problems arose or they were uncertain about a judgment.

Workers were instructed to complete the instrument at the point in the process of case management where, as applicable, the investigation report or other summary reports were completed. For the intake workers this required that the instrument be completed within two to
four weeks after the investigation. Ongoing workers and workers who handled both investigations and ongoing cases were instructed to complete the instrument at the point the social service summary was prepared for the family or at the point they felt sufficiently confident to address the items contained in the instrument.

Workers' verbal commentary and notations on study instruments were compiled during training and data collection. Aside from a general concern about the length of the instrument, workers generally perceived it as comprehensive and thorough.

**Human Subject Consideration**

Since the identities of study families were known only to agency personnel, the chairman of the university human subject review committee judged that this study would not be required to undergo review. Additionally, no written consent was required from the family members of study cases. Reasons cited for this waiver addressed the assurance of anonymity for study families, even to the researcher, and the fact that information collected by the study instrument is largely identical to the information gathered by caseworkers as a normal part of case processing, hence requiring no surplus risk for individuals for whom data were gathered.
MEASUREMENT OF VARIABLES

The measurement of variables and concepts necessary to answer the study questions involved the use of both single-item and multiple-item indicators. A significant issue that pervaded the measurement task was that all workers would not be equally familiar with the nature and type of information requested by the study for all cases. Further, for many items, particularly pertaining to attributes of parents and guardians, only general rather than specific information would likely be available for most cases. One of two choices was necessary: to request precise information that would likely not be available and would hence tend to frustrate caseworkers completing study instruments, or to gather information by using broad categories that would lessen the need for speculation on the part of participating caseworkers. The latter course was chosen. The following discussion will address sets of variables individually.

Demographic Data

Age, sex, and race data were gathered for all family members. This was accomplished both in Section I, which was completed after the investigation, and in Sections IV and V. As noted earlier, the redundant information was used as part of the quality control checking procedures.
Various aspects of family structure are addressed in the writings of numerous authors. Most often mentioned as affecting maltreatment occurrence are single parent household (Giovannoni and Billingsley, 1970; Pelton, 1981; Polansky, et al., 1979; Ory and Earp, 1980; Wilson, Daly, and Weghorst, 1980), the number of children (Ory and Earp, 1977; Wolock and Horowitz, 1979) and the spacing of children (Wolock and Horowitz, 1979). Accordingly, a count was obtained of all adults and children present in a family. Age and relationship data were also gathered. From the age data child spacing was determined, as well as the age of the mother when the first child was born (Herrenkohl, et al., 1978). The measure of child spacing required some mathematical manipulation. The concept of stress derived from child spacing has two components: age range from youngest to oldest child, and the number of children present within that range. Both to reduce the number of explanatory variables and to better capture this concept, these variables needed to be combined into a single measure. Several points needed to be considered in so doing:

- greater numbers of children present in different families in an age range with the same aged youngest and oldest children must produce lower spacing scores (i.e., less spacing, hence greater stress):
the same number of children in the same range of years would produce progressively lower scores as the age of the youngest child decreases; and,

- the same number of children in a given range of years should, for progressively older ages for the youngest child, produce progressively smaller increments in the spacing score, indicating progressively diminishing reductions in stress.

After numerous computer-assisted trials, such a conversion formula was derived. Although it satisfies the three stated criteria, it is not the only computational scheme that would do so. Derived scores should only be viewed as ordinal ranks—other than by relative association, the numbers have no meaning.

Attributes of Parents or Guardians

Understandably, the variables that have received the most attention in the maltreatment literature with respect to causation are the characteristics of the parents and/or guardians. Although the majority of authors, such as Polansky and his associates, focus almost exclusively upon psychological attributes, others such as Garbarino and Stocking (1980), Gelles (1975), Milner and Wimberley (1980), and Pelton (1978, 1981) examine a wide range of individual attributes.
Section IV gathered a significant amount of individual data. Table 2 presents a list of the variables measured with the item number in Section IV and the level of measurement. Because of the use of broad categories, a considerable amount of data was ordinarily scaled, with three to five categories presented. Particular attention should be given the assessment of physical, intellectual, and psychological functioning.

The rating of physical functioning was achieved on a five point ordinal scale ranging from no impairment of physical functioning to total impairment. Each level offered specific behavior referents so that the consistency of judgments would be maximized across workers. The measure of intellectual functioning also used a five-point ordinal scale. It ranged from "considerably above average" to "considerably below average," and obviously lacked specific behavioral anchors as used in the measure of physical functioning. However, workers were instructed to make their assessments relative to "other clients with which (they had) worked," in order to provide a benchmark for their assessments.

Sweet and Besick (1979) discuss the dominant position of the psychological hypothesis in maltreatment causation. Because of this prominence, the measurement of any psychological construct needed to be addressed thoughtfully. Due
### Measured Characteristics of Parents

<table>
<thead>
<tr>
<th>Variable Measured</th>
<th>Item Number</th>
<th>Level of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of home environment between ages 1 and 17</td>
<td>22</td>
<td>Nominal</td>
</tr>
<tr>
<td>Likelihood physically abused as child</td>
<td>23</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Likelihood neglected as child</td>
<td>24</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Marital status</td>
<td>7</td>
<td>Nominal</td>
</tr>
<tr>
<td>Employment status</td>
<td>8a</td>
<td>Dichotomous</td>
</tr>
<tr>
<td>Hours worked and wages</td>
<td>9a</td>
<td>Ratio</td>
</tr>
<tr>
<td>Reason for not working</td>
<td>9c</td>
<td>Nominal</td>
</tr>
<tr>
<td>Years of school completed</td>
<td>10</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Degree of physical disability or illness</td>
<td>11</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Level of intellectual functioning</td>
<td>12</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Level of psychological functioning</td>
<td>13</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Likelihood of substance abuse</td>
<td>14</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Influence of subculture values on behavior</td>
<td>32</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Level of child care knowledge</td>
<td>31</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Past history of child maltreatment</td>
<td>28 &amp; 29</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Extent of child care responsibility</td>
<td>30</td>
<td>Ratio</td>
</tr>
</tbody>
</table>

To the burden it would have placed upon participating workers and the necessity of securing cooperation from the
adults in study families, using any existing standardized, multiple-item schedule for psychological assessment was deemed impractical.

The Global Assessment Scale (GAS) (Spitzer, Gibbon, and Endicott, 1979) was chosen as a model for accomplishing the measurement. Much like the physical measure, this assessment addresses level of functioning. For each category, specific anchors are offered that present behaviors and do not rely at all upon a diagnosis of psychological problems. This approach was deemed the only method likely to provide meaningful data across workers, given the theoretical diversity among case-workers and the effect that theoretical diversity would have on diagnosis (Sweet and Resick, 1979). Additionally, there was concern over the inherent poor reliability of psychological diagnosis in general (Stuart, 1970).

It should be noted that the GAS itself was not actually used, but rather a scheme based upon it. Item 13 in Section IV presents nine levels of psychological functioning ranging from "no symptoms" to "needs supervision to prevent hurting self or others, or to maintain minimal personal hygiene, or gross impairment in communication." These categories are identical to those of the GAS except that, because their distinction was not particularly meaningful in the context of this study, the ninth and tenth
categories were combined. The other principal difference occurs because only the global categories were used by this study while the GAS uses a one to ten rating within each global category chosen so as to offer a more precise measurement of the extent of symptoms. As a result of discussions with child protection workers, it appeared that the global categories would be most applicable. In that the GAS was developed for use in an inpatient setting, the workers' concern that the finer assessments would be very speculative seemed justified.

Attributes of Children

As discussed before, age, sex, and race data as well as victim status and the relationship to guardians were assessed for each child in a family. Several authors have speculated that attributes of specific children may cause an increase in the likelihood that they will become victims of maltreatment (Friedrich and Boriskin, 1976; Wolock, 1981). Accordingly, five indicators noted in literature were assessed for each child in study families. These are:

- child has severe or chronic illness;
- child was hospitalized as an infant;
- child's level of psychological functioning (GAS);
- child does not obey, is unruly; and,
- child cries excessively.
**Income and Public Assistance**

Poverty is a pervasive factor in the maltreatment literature. Some authors argue that the poverty-maltreatment association is an artifact of the greater degree of public scrutiny to which poorer families are subjected, thus making their maltreating behavior more subject to detection than that of parents more financially well-to-do (Park and Collmer, 1975). Others such as Pelton (1981) argue that the association is not such an artifact, but is instead causal. Gelles (1975) also takes the position that poverty is a cause of maltreatment. Polansky, et al. (1979), using his "sick mother" model, infers that poverty is a factor, but it could possibly result from a mother's flawed personality—having driven off the husband because of her psychopathology.

Regardless of how it is framed by particular authors, poverty is an important factor in any causal investigation of child maltreatment. Because of this, explicit assessments of both monthly employment-related and monthly public assistance income were gathered. Further, whether or not a family was receiving public benefits and services, or needed such benefits and services but were not receiving them, was also assessed. The specific services and benefits assessed can be examined in Section III of the full instrument.
The federal government has established poverty levels for families of varying size. Based upon family size and the associated poverty level, family income was converted to a percentage of poverty level. These values were reflected so that high numeric values indicated high poverty. This calculated variable was used as the economic measure in analysis.

**Stress Factors**

Certainly, poverty imposes stress upon families. Specific problems with a child and physical health problems are also potential sources of stress. However, a great many other sources of stress, some themselves possibly related to poverty, are discussed in the maltreatment literature (Giovannoni and Billingsley, 1970; Pelton, 1981; Ory and Earp, 1980; Wolock, 1979; Wolock and Horowitz, 1979). Sections IV and V collected data concerning different stress circumstances during the six months preceding the maltreatment report. Specific items are as follows:

- loss of a job;
- serious injury or illness;
- death of a close friend or relative;
- birth of a child;
- breakup of marriage of other serious relationship;
- physical assault or rape;
- cut-back in amount of public assistance;
• termination from public assistance program;
• change of residence;
• eviction; and,
• home broken into.
Each item was assessed as either true or false for each adult present in the family.

In that all items would likely not have equal impact, weights were taken for each "true" item from "The Schedule of Recent Experience" (Amundson, Hart, and Holmes, 1981). A stress index ranging from zero stress points, indicating no stress, to 450 stress points, indicating high stress, was thus derived for use in analysis. In that specific numeric values have no absolute meaning, stress scores were standardized to a "Z" distribution to facilitate interpretation of partial regression coefficients.

**Housing Conditions**

Although housing conditions and physical living arrangements are undoubtedly a function of income, at least in part, they constitute a separate stress factor to the extent that they are unsatisfactory. Pelton (1981), Ory and Earp (1980) and Wollock and Horowitz (1979) identify poor or crowded physical living conditions as covarying with the occurrence of child maltreatment. To capture such information, the physical condition of the home was assessed on a four-point ordinal scale. The number of
rooms, excluding bathrooms, was also assessed. The number of family members will be divided by the number of rooms in the home to create a ratio of people to rooms, which will be used in analysis as a crowding ratio.

**Social Isolation of Parent**

Social isolation has received considerable attention in literature as being instrumental in maltreatment (Giovanoni and Billingsly, 1970; Milner and Wimberley, 1980; Pelton, 1981; Polansky, Borgman, and DeSaix, 1972; Wolock and Horowitz, 1979). Although likely an important factor, it is somewhat difficult to assess. In an effort to capture some indication of isolation, six items (Section IV, 16-21) were included to assess different aspects of isolation. Additionally, an item in Section III determined whether or not the family had a telephone in the home, the lack of which was perceived as potentially contributing to isolation.

These seven items were summed to create an index that will assess individuals on a continuum from extreme isolation to not socially isolated.

**Measures of the Extent of Maltreatment**

Three variables from the overall assessment in Section II will serve as the study's dependent measures. The first variable is an assessment of the extent to which the remov-
al of a child is indicated by the family situation. A seven-point ordinal scale is provided, with "absolutely no need for removal" and "child cannot survive without removal" presented as anchors.

The other two variables are measures of the extent to which child abuse and child neglect are present in a family. These are measured on a ten-point ordinal continuum anchored by "none present" and "extreme, death probable." Even though this information was supplied by both the case investigator and the ongoing caseworker in some agencies, the assessments used were always those of the ongoing worker, based upon the information gathered by them over time in connection with a case.

DATA ANALYSIS

As would be expected given the considerable amount of data generated by this study, data were coded, keyed to magnetic tape, tabulated, and analyzed with the assistance of a computer. In addition to manual quality control checks accomplished as part of the coding task, several algorithms were prepared so that the computer could be used for identifying cases containing inconsistent data prior to analysis. The actual data analysis had three phases.

The first phase used tabular and crosstabular data to describe the sample of study families. Specific results of
this phase are presented in Chapter IV. The second phase examined the reliability of assessments made during the initial investigation as compared with the same assessment made by ongoing caseworkers once more information became available. At issue was whether assessments at intake were sufficiently accurate for observable phenomena and judgments concerning the nature and extent of problems to warrant the development of a standardized instrument to help structure the investigative activities and decision. This analysis involved the generation of percent agreement and percent disagreement scores for the items contained in Section II. These results are presented in Chapter V.

The final phase involved the application of multiple regression analysis and its special case, path analysis, to the variables and models presented in the child maltreatment literature. The results of this model testing are presented in Chapter VI. From these percentages, the Kappa statistic was calculated. This statistic can be viewed as an interclass correlation coefficient of the type widely used to assess interrater reliability (Fleiss, 1981).

Most of the statistical analysis was accomplished using readily available statistical software. The Statistical Package for the Social Sciences (SPSS) was used for the bulk of the tabular work. The Statistical Analysis System (SAS) and the Interactive Path Analyzer (IPA) pro-
gram, which is part of Statpac, were used for the regression and path analyses. Special application software was developed by this author to provide agreement percentages and the Kappa statistic for the second phase of analysis. This was done because it proved to be the easiest method for generating such information. Standard statistical packages are designed to analyze data for which some form of unitary case is the basic unit in the data, and a group of such cases forms a data set. The paired data set used in the assessment of consistency could not have been conveniently analyzed using standard statistical software. The source code for the program used is presented in Appendix D.

STUDY LIMITATIONS

While the methodological decisions for this study were deemed the most appropriate given the constraints under which the study was conducted, those decisions were nevertheless consequential and merited attention. The following is a discussion of some of the possible effects of those decisions.
The Sample

Inferential statistics are used in this study to assess the likelihood that observed effects can be generalized to the population of maltreating families. In discussing the assumptions that underly the use of probabilities to make judgments about the results of statistical test, Hayes (1973) notes that "first and foremost among such assumptions is that the sample is random" (p. 336). In that the sample for this study is clearly not random and the intent has been expressed to use inferential statistics, there would appear to be an inconsistency. Simply put, there is an inconsistency. However, there is also a line of logic that might, in part, permit the tolerance of this type of inconsistency.

Some researchers such as Polansky use inferential statistics in connection with the analyses on purely purposive or convenience samples, and proceed, from whatever statistically significant findings emerge, to create a rather explicit portrait of the phenomenon under investigation. Such a procedure is not appropriate.

While it is often difficult to generate a purely random sample, if such a sample can be approximated, the cautious utilization of inference can be, to a degree, justified. However, a researcher can only hope that "sampling error" is not unknowingly out of control. Consequently,
any statistical findings need to be treated in a tenuous fashion precluding sweeping statements about the study topic or dramatic recommendations for action or inaction.

In the earlier discussion of the study sample, a rationale was presented for why study data could be treated, albeit cautiously, as representative of maltreating families seen by the children's protective services workers in Ohio. The position taken herein is that the application of inference to the task of deciding what is and what is not significant for study data is justified as long as restraint is exercised in the interpretation of those findings. Clearly, it would have been very beneficial to have the state registry data for comparative purposes to either lend support to or highlight the inadequacy of this assumption.

M e a s u r e m e n t I s s u e s

As noted earlier, broad, general categories were used for many study variables because workers were likely to know most of their cases only in broad terms. Unfortunately, it is a basic principle of measurement that when specific categories are aggregated into more general categories, measurement error is increased (Nunnally, 1978).

For example, if one were interested in measuring age, and did so in whole years, such a measurement would generally be considered accurate. It would be, however, inaccu-
rate, in that individual measurements would be in error to the extent of the number of days individuals had proceeded towards their next birthday. As a result, the true age of such individuals could be thought of as their age at the last birthday plus the number of days having passed since that birthday (True Age = Age at Last Birthday + Days Since Last Birthday). The days not considered would be classified as measurement error.

To be sure, measurement error is always present, but often is sufficiently minimal as to pose no problems to a research endeavor. Certainly, age at last birthday would be more than accurate for most age-related questions. However, it is not uncommon for age to be categorized even further, such as in units of five or ten years. This type of categorized measurement presents yet another source of measurement error.

While such error can be tolerated in some research, it would prove very problematic for research into child maltreatment in that most perpetrators are in their twenties, and virtually all perpetrators would fall into the three ten-year categories between eleven and forty. What results from the use of larger aggregate categories is a loss of variance, and this is particularly problematic when a research effort seeks to examine covariation between and among variables.
While the degree of aggregation found in the study instrument is not as severe as that presented in the example, the loss of precision in measurement cannot be assumed to be without effect. While simulation studies have demonstrated that the correlational structure of data is typically not radically altered when continuous data are collapsed into range categories, one can only hope that such will be the case in given instances where categorization takes place. Fortunately, where effects are noted, the nature of the effect is to reduce the apparent level of relationship. Hence, the effect would be that of a Type I inferential error, not recognizing an effect that actually exists. If one must have error, this is the most tolerable type.

A Note on Reliability and Validity

Attitude assessments were not used in the study instrument both out of design as well as necessity. Because of this, issues of reliability and validity are not as complicated. The approach taken in the instrument was to use only clear empirical referents of the concepts under study. Even the two multiple-item indicators, stress and isolation, simply summed concrete items as "lost job" or "number of days per week this person does not leave home." The preceding discussion addressed the existence of measurement error, which is also at the crux of the reliability and validity issue.
The items assessed in the study instrument demonstrate face validity, a type of validity that, as Nunnally (1978) notes, requires that items stand upon the power of their own appeal. A claim of face validity is made given that items measured were empirical referents derived from an extensive literature review covering the topic of child maltreatment.
Chapter IV
DESCRIPTION OF STUDY CASES

THE COUNTY LEVEL

Data were collected by child welfare workers in 21 Ohio counties for 491 cases. Of these 491 cases, 19 were eliminated because of missing data or because they were inappropriate for inclusion in the study. Table 3 shows the distribution of the 472 study cases by county classification. The urban counties supplied 44.7 percent of study cases, while the part-urban, part-rural and the rural counties each provided slightly over 25 percent. Both the rural and the part-urban, part-rural counties were over-represented relative to population so that variance in study variables would not be dictated by the urban cases.

Table 3
Cases by County Type

<table>
<thead>
<tr>
<th>County Type</th>
<th>Cases Provided</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>211</td>
<td>44.7</td>
</tr>
<tr>
<td>Urban/Rural</td>
<td>136</td>
<td>28.8</td>
</tr>
<tr>
<td>Rural</td>
<td>125</td>
<td>26.5</td>
</tr>
<tr>
<td>Total</td>
<td>472</td>
<td>100.0</td>
</tr>
</tbody>
</table>
MALTREATMENT CLASSIFICATION OF CASES

The overall ratings for the degree of abuse and neglect present in a family, as recorded by the ongoing case-worker in the summary ratings in Section II of the study instrument, were used to classify cases as being either abuse, neglect, or both. Table 4 presents the distributions for these classifications. While estimates in the literature cite ratios from between 1 to 1 and 12 to 1 for the number of neglect cases relative to abuse, the ratio for study cases is 3.7 to 1. This is in the range of the proportions most frequently suggested. Of interest is that 31.8 percent of study cases were classified as both neglecting and abusing. Although some authors argue that neglect and abuse are different manifestations of the same phenomenon rather than two separate problems, virtually no attention has been afforded conditions that are both abusive and neglectful.

Table 4

<table>
<thead>
<tr>
<th>Type of Maltreatment</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neglect</td>
<td>253</td>
<td>53.6</td>
</tr>
<tr>
<td>Abuse</td>
<td>69</td>
<td>14.6</td>
</tr>
<tr>
<td>Both</td>
<td>150</td>
<td>31.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>472</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
In that the preponderance of literature is supportive of the separate problem conception, the causal analyses presented in Chapter VI will examine subgroups as well as the overall group. This will permit the demonstration of differences if they in fact exist. However, unlike other studies, the classification of both abuse and neglect was used as a third category.

A question of interest was whether the distribution of types of maltreatment differed by county type. Table 5 presents maltreatment classifications by type of county. Although actual numeric differences suggest a slight increase of abuse cases in urban counties, the Chi square test was not statistically significant. Therefore, it can be assumed that proportional classification of maltreatment cases does not differ across counties of differing type.

Table 5

<table>
<thead>
<tr>
<th>Classification of Maltreatment by County Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Type</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>Urban</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Urban/Rural</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Rural</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
SOURCE OF REFERRAL

The manner in which study cases came to the attention of county protective services workers was varied. Table 6 presents the distribution of cases by referral source. While family or relatives reported the greatest proportion of cases, no single source predominated. Further, the proportions did not change significantly across county types.

Table 6

Sources of Case Referral

<table>
<thead>
<tr>
<th>Source</th>
<th>Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors or Hospital</td>
<td>43</td>
<td>9.1</td>
</tr>
<tr>
<td>School</td>
<td>67</td>
<td>14.2</td>
</tr>
<tr>
<td>Social Service</td>
<td>51</td>
<td>10.8</td>
</tr>
<tr>
<td>Police or Court</td>
<td>63</td>
<td>13.3</td>
</tr>
<tr>
<td>Friend or Neighbor</td>
<td>43</td>
<td>9.1</td>
</tr>
<tr>
<td>Family or Relative</td>
<td>83</td>
<td>17.5</td>
</tr>
<tr>
<td>Anonymous</td>
<td>28</td>
<td>5.9</td>
</tr>
<tr>
<td>Not Recorded</td>
<td>94</td>
<td>19.9</td>
</tr>
<tr>
<td>Total</td>
<td>472</td>
<td>100.0</td>
</tr>
</tbody>
</table>

FAMILY CHARACTERISTICS

There were 1,924 people in the 472 study families. Of this number, 1,165 were minor children, 498 were adults living together as a couple (both married and cohabiting), 223 were single parents and 38 were other adults. Of the 1,165 children, 954 (81.9 percent) were classified as having been maltreated.
The majority of the maltreated children were living with their parents (95.2 percent). Stepparents and adoptive parents were guardians for 1.6 percent. Grandparents and friends or neighbors were the guardians of almost another 3 percent.

This distribution of relationships was virtually identical across the three classifications of maltreatment. Notably, while 1 percent of neglected children were adopted or stepchildren, that percentage doubled for both abuse and neglect, and doubled again to 4 percent for abuse only.

The economic well-being of study families varied widely. Including public assistance income, the overall mean of monthly family income was $705.39 with a standard deviation of $568.01. The range was $90 to $6,000. In order to reflect family circumstances more meaningfully, the income variable was converted, using the poverty level based upon family size, to a percentage of poverty level.

The overall mean was 10.1 percent below poverty level. A one-way analysis of variance revealed that the three categories of maltreating families differed significantly ($F=9.117, p<=0.0001$). The Scheffe post hoc test of differences, statistically the most conservative of the post hoc tests, demonstrated that the abusing families had a significantly higher income than that of the other two groups. Abusing families' income averaged 28.3 percent above the
poverty level, whereas both abusing and neglecting families averaged 15 percent below, and neglecting families 17.6 percent below poverty level.

**CHARACTERISTICS OF ADULTS**

Table 7 shows the age distribution for both male and female adults. The average age of adults was equivalent for the three categories of maltreatment, ranging from 30.7 to 31.8 years.

**Table 7**

Age Distribution for Adults

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Count</th>
<th>Percent</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 to 20</td>
<td>12</td>
<td>4.4</td>
<td>48</td>
<td>10.7</td>
</tr>
<tr>
<td>21 to 25</td>
<td>51</td>
<td>18.7</td>
<td>114</td>
<td>25.4</td>
</tr>
<tr>
<td>26 to 30</td>
<td>62</td>
<td>22.7</td>
<td>86</td>
<td>19.2</td>
</tr>
<tr>
<td>31 to 35</td>
<td>42</td>
<td>15.4</td>
<td>97</td>
<td>21.7</td>
</tr>
<tr>
<td>36 to 40</td>
<td>40</td>
<td>14.7</td>
<td>59</td>
<td>13.2</td>
</tr>
<tr>
<td>41 to 45</td>
<td>34</td>
<td>12.5</td>
<td>25</td>
<td>5.6</td>
</tr>
<tr>
<td>46 to 50</td>
<td>11</td>
<td>4.0</td>
<td>14</td>
<td>3.1</td>
</tr>
<tr>
<td>50 and older</td>
<td>21</td>
<td>7.7</td>
<td>12</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Total: 273 (100.0) 448 (100.0)

Mean: 34.1 30.6
Std. Dev.: 10.5 8.9

Table 8 presents the distribution for race of adults by sex. Race was also examined in connection with the type of maltreatment. The Chi square for the crosstabulation of
race with the type of maltreatment demonstrated that race was not associated with the type of maltreatment.

Table 8
Race by Sex for Adults

<table>
<thead>
<tr>
<th>Race</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Percent</td>
</tr>
<tr>
<td>Nonwhite</td>
<td>40</td>
<td>14.7</td>
</tr>
<tr>
<td>White</td>
<td>233</td>
<td>85.3</td>
</tr>
<tr>
<td>Total</td>
<td>273</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The number of years of schooling completed is presented in Table 9. What is particularly striking is that approximately 63 percent of the males and 61 percent of the females did not complete high school. Also, differences were evident by type of maltreatment. Of the adults in neglecting families, 66.4 had not completed high school. The percentage was 62.6 in families where both neglect and abuse were present. However, only 31.8 percent of the adults in abusing families had failed to complete high school. Similarly, about twice as many adults in abusing families had pursued education beyond high school as compared to the other two categories.

Adults in study families had a notable degree of physical difficulties. Almost 14 percent of the males and 13
Table 9

**Level of Schooling for Adults**

<table>
<thead>
<tr>
<th>Year</th>
<th>Male Count</th>
<th>Male Percent</th>
<th>Female Count</th>
<th>Female Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Grad</td>
<td>8</td>
<td>2.9</td>
<td>7</td>
<td>1.6</td>
</tr>
<tr>
<td>Some College</td>
<td>5</td>
<td>1.8</td>
<td>23</td>
<td>5.1</td>
</tr>
<tr>
<td>H.S. Grad</td>
<td>87</td>
<td>31.9</td>
<td>146</td>
<td>32.6</td>
</tr>
<tr>
<td>10th or 11th</td>
<td>106</td>
<td>38.8</td>
<td>190</td>
<td>42.4</td>
</tr>
<tr>
<td>9th or less</td>
<td>67</td>
<td>24.6</td>
<td>82</td>
<td>18.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>273</strong></td>
<td><strong>100.0</strong></td>
<td><strong>448</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Mean

<table>
<thead>
<tr>
<th>Male Mean</th>
<th>10.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Std. Dev.</td>
<td>2.3</td>
</tr>
</tbody>
</table>

percent of the females had physical difficulties that in some way resulted in a moderate or more severe interference with their ability to function in the family. Also, both males' and females' averages on the measure of psychological functioning indicated some mild symptoms, although at a level that matched the category "most lay persons would not consider (them) sick." The distributions for the measure of psychological functioning are presented in Table 10.

Of the adult males, 27.8 percent were identified as "very likely" having a drug or alcohol problem, while the value for females was 17.9 percent. In addition to substance abuse, subcultural influences were a significant factor affecting belief and behavior for 37.4 percent of the males and 33.7 percent of the females.
Table 10

Level of Psychological Functioning for Adults

<table>
<thead>
<tr>
<th>Level</th>
<th>Male Count</th>
<th>Male Percent</th>
<th>Female Count</th>
<th>Female Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No Symptoms</td>
<td>9</td>
<td>3.3</td>
<td>17</td>
<td>3.8</td>
</tr>
<tr>
<td>2.</td>
<td>44</td>
<td>16.1</td>
<td>69</td>
<td>15.4</td>
</tr>
<tr>
<td>3. Minimal Sym.</td>
<td>53</td>
<td>19.4</td>
<td>103</td>
<td>23.0</td>
</tr>
<tr>
<td>4.</td>
<td>97</td>
<td>35.5</td>
<td>141</td>
<td>31.5</td>
</tr>
<tr>
<td>5. Moderate Sym.</td>
<td>35</td>
<td>12.8</td>
<td>53</td>
<td>11.8</td>
</tr>
<tr>
<td>6.</td>
<td>17</td>
<td>6.2</td>
<td>32</td>
<td>7.1</td>
</tr>
<tr>
<td>7. Major Symptoms</td>
<td>13</td>
<td>4.8</td>
<td>24</td>
<td>5.4</td>
</tr>
<tr>
<td>8.</td>
<td>4</td>
<td>1.5</td>
<td>7</td>
<td>1.6</td>
</tr>
<tr>
<td>9. Total Dependent</td>
<td>1</td>
<td>0.4</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>273</td>
<td>100.0</td>
<td>448</td>
<td>100.0</td>
</tr>
<tr>
<td>Mean</td>
<td>3.9</td>
<td></td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Std.Dev.</td>
<td>1.5</td>
<td></td>
<td>1.6</td>
<td></td>
</tr>
</tbody>
</table>

When these two variables are contrasted with type of maltreatment, abuse stood apart from the other two categories. Adults in abusing families have a significantly ($X^2=17.2, P=0.0002$) lower incidence of substance abuse problems (11.6 percent) than neglect (26.1 percent) or families where both abuse and neglect are present (38.0 percent). Although abuse was relatively lower, it should be noted that substance abuse was a problem in more than one in ten abusing families. It is also noteworthy that, in families where both types of maltreatment were present, the proportion was almost four in ten. Similarly, adults in abusing families were significantly ($X^2=16.8, P=0.002$) less influenced by subcultural values.
Adults in about one-third of all study families were classified as having a prior validated charge of maltreatment. This was significantly ($\chi^2=10.9, P=0.004$) related to the type of maltreatment. Abusers were less likely to have a prior validated complaint; but even so, 18.8 percent of abusing families, as opposed to 32.4 for neglecting families and 41.3 for both types, had prior validated complaints.

CHARACTERISTICS OF CHILDREN

Of the children identified as having been maltreated, 50.1 percent were male and 75.6 percent were white. These percentages were virtually identical for all children in study families: 50.7 percent were males and 74.0 percent were white. From a total of 1,165 children, 13.7 percent were known to be having problems in school. Approximately 13 percent had severe or chronic medical problems, and 11.8 percent had been hospitalized as infants. They did, however, appear as a group to be psychologically healthy, with an average over all children of 2.7 on the assessment scale. Almost 20 percent of the children were classified as unruly or as presenting a disciplinary problem.
AREAS OF MALTREATMENT

As discussed in Chapter III, data were collected for 12 different areas of maltreatment. These categories were suggested in part by Giovannoni and Becerra (1979). Each of the 12 areas was assessed for all study families, so that conceivably all 12 areas could have been noted as problematic for a family. The summary information for areas rated as likely to be problematic for all study families is presented in Table 11. The information in Table 11 was derived from Section II of the study instrument. This section was designed such that whenever a problem was indicated, the worker completing the instrument also provided several severity ratings.

Table 11
Extent of Maltreatment by Area

<table>
<thead>
<tr>
<th>Area of Maltreatment</th>
<th>Cases</th>
<th>Pct Responses</th>
<th>Pct Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Abuse</td>
<td>120</td>
<td>9.2</td>
<td>30.8</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>38</td>
<td>2.9</td>
<td>9.7</td>
</tr>
<tr>
<td>Supervision Neglect</td>
<td>134</td>
<td>10.3</td>
<td>34.4</td>
</tr>
<tr>
<td>Moral Conduct</td>
<td>111</td>
<td>8.5</td>
<td>28.5</td>
</tr>
<tr>
<td>Medical-Dental Neglect</td>
<td>89</td>
<td>6.8</td>
<td>22.8</td>
</tr>
<tr>
<td>Nutritional Neglect</td>
<td>145</td>
<td>11.5</td>
<td>37.2</td>
</tr>
<tr>
<td>Emotional Neglect</td>
<td>156</td>
<td>12.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Substance Abuse Problems</td>
<td>117</td>
<td>9.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Cleanliness Conditions</td>
<td>113</td>
<td>8.7</td>
<td>29.0</td>
</tr>
<tr>
<td>Educational Neglect</td>
<td>58</td>
<td>4.5</td>
<td>14.9</td>
</tr>
<tr>
<td>Clothing Conditions</td>
<td>121</td>
<td>9.3</td>
<td>31.0</td>
</tr>
<tr>
<td>Housing Conditions</td>
<td>101</td>
<td>7.8</td>
<td>25.9</td>
</tr>
<tr>
<td>Total Responses</td>
<td>1303</td>
<td>100.0</td>
<td>334.1</td>
</tr>
</tbody>
</table>
Table 12 presents the areas of maltreatment assessed in Section II ranked in descending order of rated severity across study cases indicated as having problems in a particular area. For all areas the question read, "What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a 'flawed adult')?" It is this author's contention that the assignment of a maltreating label to parents ought to be linked with a likelihood that observed or suspected conditions will result, if left unchanged, in an adult who has a reduced capacity to function in the adult world. Given this position, the assessments as to whether observed or suspected conditions would produce a "flawed adult" were of significant interest.

The actual assessments were accomplished on a seven-point ordinal scale that was anchored with "not likely" and "extremely likely." Although this is a gross measurement, one can draw some interesting points from the ranking while at the same time being careful not to magnify small numeric differences wrongfully.

The most striking finding was that physical abuse, which has been the main focus of both service and research efforts, ranked only ninth of the twelve areas according to rated severity of maltreatment conditions. Also striking was that emotional neglect ranked first. This would seem
to be consistent with arguments that place this category of maltreatment as likely the most prevalent, while paradoxically being the most difficult to prove. Notable too was that educational neglect was ranked second. Interestingly, parental behaviors with respect to morals and substance abuse were ranked third and fourth, although numerically they did not differ to a great extent from the next three categories.

Table 12

Areas of Maltreatment by Severity Ranking

<table>
<thead>
<tr>
<th>Area of Maltreatment</th>
<th>N</th>
<th>Rank</th>
<th>Mean Rating</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Neglect</td>
<td>156</td>
<td>1</td>
<td>5.29</td>
<td>1.62</td>
</tr>
<tr>
<td>Educational Neglect</td>
<td>58</td>
<td>2</td>
<td>4.83</td>
<td>1.67</td>
</tr>
<tr>
<td>Substance Abuse Problems</td>
<td>152</td>
<td>3</td>
<td>4.74</td>
<td>1.88</td>
</tr>
<tr>
<td>Moral Conduct</td>
<td>111</td>
<td>4</td>
<td>4.68</td>
<td>1.99</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>38</td>
<td>5</td>
<td>4.66</td>
<td>2.12</td>
</tr>
<tr>
<td>Medical-Dental Neglect</td>
<td>89</td>
<td>6</td>
<td>4.53</td>
<td>1.85</td>
</tr>
<tr>
<td>Supervision Neglect</td>
<td>134</td>
<td>7</td>
<td>4.44</td>
<td>1.86</td>
</tr>
<tr>
<td>Nutritional Neglect</td>
<td>119</td>
<td>8</td>
<td>4.35</td>
<td>1.71</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>120</td>
<td>9</td>
<td>4.07</td>
<td>2.04</td>
</tr>
<tr>
<td>Cleanliness Conditions</td>
<td>113</td>
<td>10</td>
<td>3.93</td>
<td>1.85</td>
</tr>
<tr>
<td>Clothing Conditions</td>
<td>121</td>
<td>11</td>
<td>3.56</td>
<td>1.88</td>
</tr>
<tr>
<td>Housing Conditions</td>
<td>101</td>
<td>12</td>
<td>3.14</td>
<td>1.63</td>
</tr>
</tbody>
</table>

NOTE: Mean ratings apply only to cases for which a the area was indicated as likely a problem.
CHARACTERISTICS OF STUDY WORKERS

Because the validity of study data relied heavily upon the professional judgments of the child welfare workers who participated in the study, it was deemed desirable to survey their characteristics. Of concern was whether participating workers were sufficiently well trained and had sufficient work experience to warrant confidence in their judgments. Each worker in participating counties was provided a questionnaire. Completion of the questionnaire was voluntary, with each being returned individually by mail so that supervisors would not know which workers had elected not to complete the instrument. The necessity for collecting personal information about workers was explained during the orientation meetings conducted at each agency. A copy of the worker instrument is presented in Appendix E.

Information about workers will be presented for the entire group only. Two hundred and ten workers completed and returned questionnaires out of 232 workers who completed case instruments for the study. This represents a participation rate of 90.5 percent.

The youngest worker was 21 years old, while the oldest was 60. The average age was 33.5 years of age. One hundred and fifty-seven were women, and 46 were nonwhite. With respect to their personal lives, 104 were married and 99 had children.
On the whole, this was a well educated group. Only 13 had a high school diploma or less. One hundred and thirty-five had bachelor's degrees while 56 had graduate degrees. Of those with degrees, 43 had a degree accredited by the Council on Social Work Education, and 73 (34.8 percent) had studied social work. All but 27 (87.1 percent) had a degree in social work or a related field. One hundred and thirty-six (64.8 percent) indicated that some portion of their college curriculum specifically prepared them for work in children services.

The workers who participated were not new to child welfare. While the range of time worked in children's protective services ranged from one month to 21 years, the average was 4.6 years. Workers had been in the positions held while participating in the study for an average of 2.9 years.

In consideration of the type and level of education of participating workers and their tenure in child welfare, concern over the invalidity of data provided due to inadequate or irrelevant education is minimal. A higher proportion of social work graduates trained at accredited institutions would have been more welcome. However, in that the State of Ohio does not recognize professional social work education as a legitimate requirement for social service positions, the extent of social workers present and the
number of persons educated in the area of social science are grounds for optimism concerning judgment validity.
Chapter V

RELIABILITY OF INVESTIGATIVE ASSESSMENTS

OVERVIEW

Chapters I and II presented a discussion of factors having a negative effect upon knowledge and theory relating to child maltreatment. One of the most significant of these factors is the lack of specific, generally recognized definitions for such key concepts as child abuse and neglect, a minimally acceptable home environment, and appropriate parenting practices. While on one hand the knowledge base relating to child maltreatment is weak, there nevertheless have been several attempts to develop standardized instrumentation to function as decision aids in the investigations of suspected maltreating cases.

Such enterprises are a cause of considerable concern given the extent of definitional problems. Ghiselli, Campbell and Zedeck (1981), in a discussion of the importance of precise definitions to the development of a multi-item measurement instrument, state:

"The clearer and more specific the definition of a variable, the more useful it is. Not only does it describe the nature of the property, but it also differentiates the property from other properties. It directly suggests the kinds of opera-
tions that should be employed in obtaining a categorization of individuals in terms of that property. A definition that is vague conveys only in a general way information about the nature of the variable and is of little value in providing guides for the development of appropriate operations" (p. 16).

In spite of the vagueness of maltreatment definitions, explicit operations for measuring maltreatment have been put forward in the form of the instruments discussed in the earlier chapters.

FOCUS OF CHAPTER

Several instruments were mentioned in Chapters I and II, and a detailed discussion was presented addressing Polansky's Childhood Level of Living Scale. This study, however, did not attempt to address the efficacy of standardized measurement in child welfare in the context of any of these existing instruments. The question addressed by this study was more fundamental than particular concerns about a given instrument. The basic position taken questions whether sufficient information is generally available to investigative workers to permit the reliable use of any standardized instrument as a decision adjunct. Because of the lack of consensus as to what constitutes maltreatment and the often limited availability of decision-relevant information at the time of an investigation, the use of standardized instrumentation was viewed as being contraindicated.
Focus was placed upon investigative workers for two reasons. First, it is in the context of maltreatment investigations—where information is typically limited, the need to make a decision is pressing and where the time for making decisions is short—that standardized assessment instruments would be of greatest value. Secondly, it is the investigative worker who assigns the maltreating label. As Szasz (1973) suggests, once a label has been attached to an individual, it becomes the lens through which the individual is perceived. Hawkins and Tiedeman (1975) outline how, once an individual has been labeled, organizational "processing stereotypes" provide information about an individual in such a way that the true nature of a person and his or her situation may not become known. Hence, to the extent the means used to affix a label are unreliable, there must be considerable concern about the pragmatic and ethical problems associated with false-positive indications. Also of concern should be the false-negative indications, wherein maltreating circumstances are not identified.

To assess the degree of reliability of observations and assessments made during the investigative process, both investigators and ongoing workers completed Section II of the study instrument in counties that had the responsibility for these two functions assigned to different personnel.
Table 13

Counties by Classification with Intake-Ongoing Workers' Data Contributed

<table>
<thead>
<tr>
<th>County</th>
<th>Classification</th>
<th>Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clark</td>
<td>Urban-Rural</td>
<td>41</td>
<td>21.5</td>
</tr>
<tr>
<td>Hamilton</td>
<td>Urban</td>
<td>24</td>
<td>12.6</td>
</tr>
<tr>
<td>Hancock</td>
<td>Urban-Rural</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Montgomery</td>
<td>Urban</td>
<td>93</td>
<td>48.7</td>
</tr>
<tr>
<td>Muskingham</td>
<td>Urban-Rural</td>
<td>17</td>
<td>8.9</td>
</tr>
<tr>
<td>Richland</td>
<td>Urban-Rural</td>
<td>14</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>191</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Six study counties had such a division of labor. Table 13 presents a list of these counties with the number of paired assessments provided. These numbers do not match those for the total number of cases provided by the counties. The reason for this is that some counties have a system that under certain circumstances divides the duties for a case, and under others does not. Rural counties were not represented in that the staff size of the protective services operations in such counties did not permit task specialization.

Assessments of reliability were accomplished by comparing the judgments of the investigators with those of the ongoing workers. Inconsistencies were viewed as errors on the part of the investigator due to inadequate information or to the use of different judgment criteria. It should be
noted that error in this context does not impugn the quality of investigative efforts. Rather, error was seen as an unavoidable consequence of the nature of the task and the state of knowledge.

An assumption implicit in this strategy for assessing interrater reliability was that the ongoing workers, who typically had several months of contact with study families before completing their instruments, would make the more accurate assessments. This assumption, of course, pertains only to the issue of availability of information. Assessment differences resulting from different judgment criteria brought to bear on similar information should not be affected by time. Differences in judgment criteria would represent true unreliability.

**ASSESSMENT PROCEDURES**

To assess the degree of judgment reliability between investigators and ongoing workers, Section II was designed to present very general questions about specific problem areas. Guidance for item selection came from a study by Giovannoni and Becerra (1979). In this study they presented a wide range of different situations in vignette form to respondents from the four professional groups most often involved with child maltreatment cases (social workers, doctors, lawyers, and policemen). These authors defined 13
areas of maltreatment and constructed vignettes to present problems in each of these 13 areas. Respondents rated each vignette according to perceived severity of the maltreating circumstances.

In Section II the 13 categories were collapsed into 12, with moral conditions and fostering delinquency being combined. Items from each of these 12 areas were presented on a separate page, or subsection, in Section II. In each subsection three general questions were asked that pertained to conditions addressed by that subsection. A fourth question, which served as a catch-all item for circumstances not addressed by the three specific questions, was also presented.

The choice of content for the specific items presented was guided by the assessments of severity reported for the vignettes by Giovannoni and Becerra (1979, pp. 112-122). Conditions assessed by the three items in each subsection reflected the conditions in the vignettes rated as most problematic across the four professional groups. This was done to help ensure that conditions assessed would have an increased probability of being viewed as problematic by all participating workers. As a result, reliability would likely not be lowered due to disagreements between investigative and ongoing workers concerning whether particular conditions assessed constituted a problem.
In addition to the four assessments of specific conditions, five assessments of severity were made in each subsection whenever conditions were deemed present that matched the problem area addressed by a subsection. The specific items addressed the extent of problems, frequency of occurrence, risk of short-term harm, risk of long-term harm, and the risk of death. Workers were instructed to render their assessments for these five items only as they pertained to the problem area addressed in the particular subsection. The final page in the section provided for a number of overall assessments.

It should be noted that ongoing workers were instructed to respond to items in Section II in such a manner that the family situation and maltreatment circumstances at the time of referral be indicated, even if the conditions no longer existed. Similarly, the overall assessments were to reflect the worst conditions in the family relative to the referral, even if interventions had lessened the severity since the time of initial intervention. It was emphasized to the ongoing workers that the study was not concerned with the effectiveness of interventions, but rather was attempting to determine the range and severity of problems present in families at the point of agency intervention. When more than one child was involved, both workers were instructed to make assessments reflect the most problematic situation of any child.
THE KAPPA STATISTIC

Fleiss (1981) devotes a chapter to the topic of inter-rater reliability. One might as an initial impression assume that a straightforward examination of the percentage of agreement between investigative and ongoing workers would suffice as a measure of interrater reliability. However, in his review of various measures of interrater reliability, Fleiss argues that there exists a need to account for chance agreement. He states: "If rater A employs one set of criteria for distinguishing between the presence or absence of a condition, and if rater B employs an entirely different and independent set of criteria, then all the observed agreement is explainable by chance" (p. 216). Therefore, percentage of agreement, Goodman and Kruskal's Lambda, Rogot and Goldberg's "A," and other like measures tend to inflate, hence misrepresent, the true degree of interrater reliability.

Fleiss argues that by incorporating chance-expected agreement, Kappa stands as a superior measure of interrater agreement. The formula for Kappa is:

\[ K = \frac{Po - Pe}{1 - Pe} \]

where:

the overall proportion of observed agreement is
\[ Po = \sum_{i=1}^{k} P_{ii} \] (2)

the overall proportion of chance-expected agreement is

\[ Pe = \sum_{i=1}^{k} P_{i} \cdot P_{i} \quad \text{and} \quad \sum_{i=1}^{k} \] (3)

\( k \) = the number of judgment categories.

For hypothesis testing, standard error formulas are presented for both the null and alternative hypotheses (Fleiss, 1981, pp. 219-221). The formula for the null hypothesis standard error is:

\[ \sqrt{\frac{1}{(1-Pe) \sqrt{n}}} \sum_{i=1}^{k} P_{i} \cdot P_{i} (P_{i} + P_{i}) \] (4)

and the null hypothesis can be tested by:

\[ Z = \frac{\hat{K}}{s.e. o(K)} \] (5)

The standard error for alternative hypotheses is:

\[ s.e. (K) = \frac{\sqrt{A+B-C}}{(1-Pe) \sqrt{n}} \] (6)

where:

\[ A = \sum_{i=1}^{k} P_{ii}(1-(P_{i} + P_{i})(1-K))^{2} \] (7)
\[ B = (1 - \hat{K})^2 \sum_{i \neq j} P_{ij}(P_{i+}P_{j+})^2 \quad \text{and} \quad (8) \]

\[ C = (\hat{K} - P_0(1 - \hat{K}))^2 \quad . \quad (9) \]

Whether or not a specified population Kappa underlies the observed sample Kappa is tested by:

\[ Z = \frac{\hat{K} - K}{\text{s.e.}(\hat{K})} \quad (10) \]

Having the ability to test an alternative hypothesis as well as the null is of crucial importance. The null hypothesis for a given Kappa tests only whether or not that Kappa differs significantly from zero. Given that some shared understandings concerning child maltreatment exist in both the academic and practice communities, it is reasonable to assume that the level of interrater reliability would be greater than zero. An important question addressed by this study was whether or not interrater reliability was sufficiently high to warrant the development of standardized instrumentation. As a result, the appropriate test would be that of an alternative hypothesis to the null.

Fleiss presents characterizations for strength of agreement based upon different ranges of Kappa. "For most
purposes, values greater than 0.75 or so may be taken to represent excellent agreement beyond chance, values between 0.40 and 0.75 may be taken to represent fair to good agreement beyond chance" (Fleiss, 1981, p.218). In that items used in the construction of a multi-item instrument must display a high degree of reliability, the alternative hypothesis tested was for a Kappa of 0.70, or a very good level of interrater reliability.

INTERPRETING THE "Z" TEST FOR THE ALTERNATIVE HYPOTHESIS

When testing the null hypothesis with a "Z" test, the critical value used to reject the null hypothesis at a 5 percent error level is 1.96. Acceptance of the null hypothesis indicates that an observed sample statistic cannot be considered to differ from zero. When testing an alternative hypothesis with the "Z" test, the value used to reject the hypothesis is also 1.96 at the 5 percent error level. Observed "Z" values less than this amount can be interpreted as support for an assertion that the sample statistic is equivalent to the proposed population value. However, "Z" values of 1.96 or more indicate that the sample statistic is either greater or less than the hypothesized value. Therefore, a statistically significant "Z" score for the alternative hypothesis, hence rejection of the alternative hypothesis, indicates that a sample Kappa
value is less than the value of 0.70, and thus represents less than very good interrater agreement. Although it is possible to have a sample Kappa that exceeds the hypothesized value of 0.70, this did not occur in the analysis.

In that no standard statistical software available at the Ohio State University provided for the calculation of Kappa, a short PL/1 program was developed by this author to calculate Kappa and test both the null and alternative hypotheses. The text of this program can be examined in Appendix 5.

DATA TRANSFORMATIONS

The ratings for the 199 cases analyzed by this program had been in some instances recoded prior to analysis. The first four items of each of the twelve subsections originally presented four categories: "not a condition," "possibly a condition," "likely a condition," and "cannot determine." So that small differences of opinion over likelihood did not artificially reduce the calculated Kappas, "possibly a condition" and "likely a condition" were collapsed to one category. In that "not a condition" and "cannot determine" address two different conditions, they were not combined. Also, for the last five items in each subsection, if the investigating worker's rating was plus or minus one point of the ongoing worker's, they were considered equivalent for the analysis of agreement.
<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child has been struck as punishment.</td>
<td>0.413</td>
<td>6.672</td>
<td>4.931</td>
</tr>
<tr>
<td>2. Child has been struck with hands or has been kicked by caregiver.</td>
<td>0.395</td>
<td>6.407</td>
<td>5.050</td>
</tr>
<tr>
<td>3. Child has been struck with an object.</td>
<td>0.326</td>
<td>5.454</td>
<td>6.146</td>
</tr>
<tr>
<td>4. Other intentional physical injury conditions present.</td>
<td>0.134</td>
<td>2.422</td>
<td>9.234</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.225</td>
<td>5.742</td>
<td>8.332</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.281</td>
<td>6.668</td>
<td>6.872</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.304</td>
<td>7.518</td>
<td>6.770</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.230</td>
<td>5.854</td>
<td>8.590</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.472</td>
<td>9.022</td>
<td>3.941</td>
</tr>
</tbody>
</table>
### Table 15

**Kappas for Sexual Maltreatment Conditions**

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child has had sexual relations with parent or guardian.</td>
<td>0.378</td>
<td>6.676</td>
<td>3.885</td>
</tr>
<tr>
<td>2. Child has had sexual relations with other relative or friend of parent or guardian.</td>
<td>0.302</td>
<td>5.431</td>
<td>4.995</td>
</tr>
<tr>
<td>3. Child has had sexual relations with sibling.</td>
<td>0.131</td>
<td>2.340</td>
<td>7.263</td>
</tr>
<tr>
<td>4. Other sexual maltreatment conditions present.</td>
<td>0.155</td>
<td>2.987</td>
<td>7.708</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.311</td>
<td>5.257</td>
<td>4.571</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.379</td>
<td>6.347</td>
<td>3.795</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.243</td>
<td>4.054</td>
<td>5.643</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.209</td>
<td>3.765</td>
<td>6.338</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.427</td>
<td>5.244</td>
<td>3.393</td>
</tr>
</tbody>
</table>
Table 16

Kappas for Supervision Conditions

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child left to be cared for by others without specific arrangements having been made by caregiver.</td>
<td>0.308</td>
<td>5.057</td>
<td>6.428</td>
</tr>
<tr>
<td>2. Child left in care of another child too young or otherwise not able to be a responsible caregiver.</td>
<td>0.305</td>
<td>5.000</td>
<td>5.681</td>
</tr>
<tr>
<td>3. Child left for long periods of time either unattended or inadequately supervised.</td>
<td>0.334</td>
<td>5.225</td>
<td>5.989</td>
</tr>
<tr>
<td>4. Other supervisory conditions present.</td>
<td>0.122</td>
<td>2.328</td>
<td>10.145</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.210</td>
<td>5.753</td>
<td>9.701</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.227</td>
<td>6.445</td>
<td>9.240</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.211</td>
<td>6.027</td>
<td>9.792</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.149</td>
<td>4.339</td>
<td>11.795</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.246</td>
<td>6.120</td>
<td>9.748</td>
</tr>
</tbody>
</table>
Table 17  
Kappas for Moral Development Conditions

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Caregiver aware of inappropriate and/or delinquent behavior and is neither supportive nor discouraging of such behavior.</td>
<td>0.174</td>
<td>2.991</td>
<td>8.470</td>
</tr>
<tr>
<td>2. Caregiver is promiscuous and does not hide behavior from child.</td>
<td>0.156</td>
<td>2.861</td>
<td>9.852</td>
</tr>
<tr>
<td>3. Caregiver encourages inappropriate or delinquent behavior.</td>
<td>0.285</td>
<td>5.302</td>
<td>6.427</td>
</tr>
<tr>
<td>4. Other moral development conditions present.</td>
<td>0.132</td>
<td>2.468</td>
<td>9.120</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.041</td>
<td>1.031</td>
<td>11.382</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.080</td>
<td>1.979</td>
<td>10.438</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.090</td>
<td>2.357</td>
<td>10.580</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.125</td>
<td>3.272</td>
<td>9.811</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.456</td>
<td>7.791</td>
<td>4.457</td>
</tr>
</tbody>
</table>
Table 18

Kappas for Medical/Dental Conditions

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child is clearly ill or injured, or has other medical problems but has not received medical attention.</td>
<td>0.192</td>
<td>3.243</td>
<td>6.958</td>
</tr>
<tr>
<td>2. Child has not been adequately vaccinated against severe diseases such as polio.</td>
<td>0.352</td>
<td>5.904</td>
<td>4.240</td>
</tr>
<tr>
<td>3. Child has obvious dental cavities or other noticeable dental problem.</td>
<td>0.282</td>
<td>5.199</td>
<td>5.569</td>
</tr>
<tr>
<td>4. Other medical/dental conditions present.</td>
<td>0.241</td>
<td>4.555</td>
<td>6.673</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.031</td>
<td>0.569</td>
<td>9.195</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.178</td>
<td>3.464</td>
<td>6.562</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.063</td>
<td>1.188</td>
<td>8.398</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.132</td>
<td>2.517</td>
<td>7.525</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.264</td>
<td>4.067</td>
<td>6.851</td>
</tr>
<tr>
<td>Subsection Item</td>
<td>Kappa</td>
<td>Z Ho</td>
<td>Z Ha</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>1. Child does not get regular meals.</td>
<td>0.280</td>
<td>4.664</td>
<td>6.787</td>
</tr>
<tr>
<td>2. Food available in the home is inadequate in quantity and/or nutritional quality.</td>
<td>0.252</td>
<td>4.166</td>
<td>7.091</td>
</tr>
<tr>
<td>3. Child appears malnourished and/or excessively underdeveloped for age.</td>
<td>0.315</td>
<td>5.284</td>
<td>4.836</td>
</tr>
<tr>
<td>4. Other nutritional problems present.</td>
<td>0.099</td>
<td>1.693</td>
<td>8.593</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.084</td>
<td>1.694</td>
<td>9.255</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.032</td>
<td>0.654</td>
<td>10.962</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.081</td>
<td>1.720</td>
<td>9.476</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.120</td>
<td>2.594</td>
<td>9.007</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.296</td>
<td>4.645</td>
<td>6.679</td>
</tr>
</tbody>
</table>
Table 20

**Kappas for Emotional Maltreatment Conditions**

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child is rejected due to caregiver indifference or by being overtly ignored by caregiver.</td>
<td>0.386</td>
<td>6.122</td>
<td>5.328</td>
</tr>
<tr>
<td>2. Child is told that she/he is worthless and/or unwanted</td>
<td>0.296</td>
<td>5.174</td>
<td>6.930</td>
</tr>
<tr>
<td>3. Child locked in a room or otherwise isolated for extended periods of time.</td>
<td>0.146</td>
<td>2.636</td>
<td>8.333</td>
</tr>
<tr>
<td>4. Other emotional maltreatment conditions present.</td>
<td>0.129</td>
<td>2.405</td>
<td>9.895</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.234</td>
<td>5.645</td>
<td>8.662</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.208</td>
<td>4.987</td>
<td>9.384</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.115</td>
<td>2.981</td>
<td>12.283</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.171</td>
<td>4.485</td>
<td>10.423</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.502</td>
<td>8.170</td>
<td>3.399</td>
</tr>
</tbody>
</table>
Table 21

Kappas for Drug/Alcohol Conditions

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Drugs and/or alcohol are in evidence in the home.</td>
<td>0.346</td>
<td>5.999</td>
<td>6.329</td>
</tr>
<tr>
<td>2. Child has used drugs/alcohol in the home with parents' consent.</td>
<td>0.392</td>
<td>7.276</td>
<td>4.203</td>
</tr>
<tr>
<td>3. Parent is alcoholic and/or drug addict.</td>
<td>0.445</td>
<td>7.953</td>
<td>4.639</td>
</tr>
<tr>
<td>4. Other drug/alcohol conditions present.</td>
<td>0.082</td>
<td>1.512</td>
<td>9.956</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.303</td>
<td>7.617</td>
<td>7.219</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.179</td>
<td>4.669</td>
<td>10.142</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.212</td>
<td>5.687</td>
<td>9.452</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.218</td>
<td>5.879</td>
<td>9.352</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child’s death?</td>
<td>0.353</td>
<td>7.021</td>
<td>6.310</td>
</tr>
</tbody>
</table>
Table 22

**Kappas for Cleanliness Conditions**

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child has not been recently or adequately bathed.</td>
<td>0.349</td>
<td>5.443</td>
<td>5.073</td>
</tr>
<tr>
<td>2. Child has filthy or matted hair.</td>
<td>0.284</td>
<td>4.221</td>
<td>5.222</td>
</tr>
<tr>
<td>3. Child's teeth are not brushed either adequately or regularly.</td>
<td>0.256</td>
<td>4.371</td>
<td>6.790</td>
</tr>
<tr>
<td>4. Other cleanliness conditions present.</td>
<td>0.217</td>
<td>3.978</td>
<td>6.741</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.104</td>
<td>2.023</td>
<td>8.462</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.079</td>
<td>1.564</td>
<td>9.138</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.121</td>
<td>2.409</td>
<td>8.229</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.158</td>
<td>3.091</td>
<td>8.209</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.550</td>
<td>6.962</td>
<td>2.084</td>
</tr>
</tbody>
</table>
Table 23

### Kappas for Educational Conditions

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child truant from school with caregiver's knowledge.</td>
<td>0.591</td>
<td>8.675</td>
<td>1.617</td>
</tr>
<tr>
<td>2. Child allowed to stay home from school when not ill.</td>
<td>0.547</td>
<td>8.494</td>
<td>2.420</td>
</tr>
<tr>
<td>3. Child kept home from school by caregiver when child is not ill.</td>
<td>0.353</td>
<td>5.838</td>
<td>5.036</td>
</tr>
<tr>
<td>4. Other educational conditions present.</td>
<td>0.085</td>
<td>1.591</td>
<td>9.213</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.240</td>
<td>4.796</td>
<td>6.495</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.131</td>
<td>2.517</td>
<td>8.695</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a “flawed adult”)?</td>
<td>0.084</td>
<td>1.806</td>
<td>10.034</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a “flawed adult”)?</td>
<td>0.060</td>
<td>1.234</td>
<td>10.497</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child’s death?</td>
<td>0.555</td>
<td>6.807</td>
<td>1.160</td>
</tr>
</tbody>
</table>
### Table 24

**Kappas for Clothing Conditions**

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child wears poorly fitting or worn out clothes/shoes.</td>
<td>0.313</td>
<td>4.937</td>
<td>5.563</td>
</tr>
<tr>
<td>2. Child wears filthy clothes.</td>
<td>0.360</td>
<td>5.651</td>
<td>4.415</td>
</tr>
<tr>
<td>3. Child is not dressed appropriately for weather.</td>
<td>0.290</td>
<td>4.525</td>
<td>5.734</td>
</tr>
<tr>
<td>4. Other clothing conditions present.</td>
<td>0.115</td>
<td>2.077</td>
<td>8.472</td>
</tr>
<tr>
<td>5. To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.092</td>
<td>1.786</td>
<td>8.556</td>
</tr>
<tr>
<td>6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.041</td>
<td>0.826</td>
<td>10.130</td>
</tr>
<tr>
<td>7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.124</td>
<td>2.593</td>
<td>8.370</td>
</tr>
<tr>
<td>8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.248</td>
<td>4.727</td>
<td>6.271</td>
</tr>
<tr>
<td>9. What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.306</td>
<td>4.418</td>
<td>4.290</td>
</tr>
</tbody>
</table>
### Table 25
Kappas for Housing Conditions

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Item Description</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Home is in poor physical condition.</td>
<td>0.380</td>
<td>5.637</td>
<td>4.698</td>
</tr>
<tr>
<td>2.</td>
<td>Home has too little space for the size of the family.</td>
<td>0.287</td>
<td>4.434</td>
<td>5.568</td>
</tr>
<tr>
<td>3.</td>
<td>Home stinks and/or is filthy, and appears not to be regularly cleaned.</td>
<td>0.315</td>
<td>4.907</td>
<td>5.568</td>
</tr>
<tr>
<td>4.</td>
<td>Other housing conditions present.</td>
<td>0.186</td>
<td>3.407</td>
<td>8.452</td>
</tr>
<tr>
<td>5.</td>
<td>To what degree do observed or suspected conditions constitute a problem?</td>
<td>0.171</td>
<td>3.971</td>
<td>8.868</td>
</tr>
<tr>
<td>6.</td>
<td>What do you judge to be the likely frequency of occurrence of observed or suspected conditions?</td>
<td>0.147</td>
<td>3.312</td>
<td>9.324</td>
</tr>
<tr>
<td>7.</td>
<td>What is the likelihood that observed or suspected conditions could result in short-term harm (harm that is transitory and is not life-threatening or likely to result in a &quot;flawed adult&quot;)?</td>
<td>0.201</td>
<td>4.707</td>
<td>8.400</td>
</tr>
<tr>
<td>8.</td>
<td>What is the likelihood that observed or suspected conditions could result in long-term harm (harm that would result in a &quot;flawed adult&quot;)?</td>
<td>0.319</td>
<td>7.176</td>
<td>6.327</td>
</tr>
<tr>
<td>9.</td>
<td>What is the likelihood that observed or suspected conditions could result in a child's death?</td>
<td>0.564</td>
<td>8.725</td>
<td>8.309</td>
</tr>
</tbody>
</table>
### Table 26

**Kappas for Overall Assessments**

<table>
<thead>
<tr>
<th>Subsection Item</th>
<th>Kappa</th>
<th>Z Ho</th>
<th>Z Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent does this family need services?</td>
<td>0.396</td>
<td>13.072</td>
<td>7.628</td>
</tr>
<tr>
<td>3. To what extent does removal of a child seem to be indicated?</td>
<td>0.504</td>
<td>15.864</td>
<td>4.664</td>
</tr>
<tr>
<td>4. Likely outcome for observed or suspected conditions?</td>
<td>0.644</td>
<td>16.307</td>
<td>1.330</td>
</tr>
<tr>
<td>5. To what degree is child abuse present in the family?</td>
<td>0.480</td>
<td>14.596</td>
<td>5.280</td>
</tr>
<tr>
<td>6. To what degree is child neglect present in the family?</td>
<td>0.368</td>
<td>14.056</td>
<td>8.309</td>
</tr>
</tbody>
</table>

**FINDINGS**

The results of the analysis are presented in Tables 14 through 26. Kappas and "Z" statistics for the null and alternative hypotheses are presented by item. Of the 108 items evaluated in the 12 subsections, 11, or 10.2 percent, yielded Kappas of 0.4 or greater. Only two items, or 1.9 percent were of sufficient magnitude to appear statistically comparable to Kappa=0.7 at the 5 percent error level. Worth considering is that having performed 108 significance tests with alpha equal to 0.05, one would expect as many as 5 percent of these tests, or approximately five, to have
demonstrated statistical significance due to error alone. Examination of the results for the overall evaluative items showed that three of the five items had Kappas of 0.4 or greater. However, only one demonstrated statistical significance under the alternative hypothesis.

Finally, a comparison was made between the classification of type of maltreatment using investigative workers' classifications from Section I and the ongoing workers' classifications from the overall assessments in Section II. The overall Kappa was 0.389, indicating very poor agreement. However, much of the disagreement arose when the investigators classified a case as either abuse or neglect while the ongoing workers classified the case as both abuse and neglect. When only the classifications of abuse and neglect were assessed, the Kappa was 0.794, indicating a very high degree of interrater reliability.
Chapter VI
REGRESSION AND PATH ANALYSIS RESULTS

OVERVIEW
The findings presented in this chapter are structured into two sections. The first section will present the findings derived using ordinary least squares (OLS) regression. The second section will present path models and results for the four theoretical conceptions of child maltreatment discussed in Chapter II. Analysis results will be presented for the entire sample of 472 families as well as each of the three subgroups of maltreating families identified in this study.

The child maltreatment literature abounds with factors hypothesized as being causal in maltreatment occurrence and severity. This study attempted to measure those factors that have received the widest attention in literature. The analyses in this chapter are built around 16 factors hypothesized as being potentially causal and three outcome factors: prior validated maltreatment, number of problem areas present in a family, and severity of maltreatment.
Table 27

**List of Variables Used in Analysis**

\( (N = 472) \)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Variable Description</th>
<th>Standard</th>
<th>Mean</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>Age of mother or, where no mother was present, the age of the father.</td>
<td>31.160</td>
<td>9.344</td>
<td>0.431</td>
</tr>
<tr>
<td>NONWHITE</td>
<td>Dummy variable indicating non-white family.</td>
<td>0.246</td>
<td>0.431</td>
<td></td>
</tr>
<tr>
<td>SUBCULT</td>
<td>Dummy variable indicating cultural/subcultural practices were a significant factor.</td>
<td>0.335</td>
<td>0.472</td>
<td></td>
</tr>
<tr>
<td>PARENTAL</td>
<td>Dummy variable indicating parent either abused or neglected by their parents as children.</td>
<td>0.223</td>
<td>0.423</td>
<td></td>
</tr>
<tr>
<td>YRSEDUC</td>
<td>Number of years of school completed by mother or, where no mother was present, the father.</td>
<td>10.604</td>
<td>2.142</td>
<td></td>
</tr>
<tr>
<td>CAREKNOW</td>
<td>Dummy variable indicating that mother's child care knowledge was &quot;generally deficient&quot; or, where no mother was present, the father's.</td>
<td>0.222</td>
<td>0.416</td>
<td></td>
</tr>
<tr>
<td>DISABLED</td>
<td>Dummy variable indicating the mother's capacity to function in the family was impaired physical disability.</td>
<td>0.135</td>
<td>0.343</td>
<td></td>
</tr>
<tr>
<td>SINGPARENT</td>
<td>Dummy variable indicating a single parent family.</td>
<td>0.472</td>
<td>0.500</td>
<td></td>
</tr>
<tr>
<td>PCTOFPOV</td>
<td>Calculated variable that representing total family income from all sources as a percentage of the Department of Labor poverty level by family size. Zero indicates values equal to the poverty level, positive values indicates below poverty level but were reflected so that higher values would indicate greater degrees of poverty.</td>
<td>0.104</td>
<td>0.779</td>
<td></td>
</tr>
<tr>
<td>ISOLATE</td>
<td>Isolation score for the mother or, where no mother was present, the father. Higher values indicate greater degrees of isolation.</td>
<td>6.824</td>
<td>1.986</td>
<td></td>
</tr>
<tr>
<td>Symbol</td>
<td>Variable Description</td>
<td>Mean</td>
<td>Deviation</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------------------</td>
<td>------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>STRESSZ</td>
<td>Stress score for the mother or, where no mother was present, the father. Higher values indicate higher levels of external stress. Variable is expressed as &quot;z&quot; scores. See discussion in Chapter III for detailed description of this variable's construction.</td>
<td>0.000</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>CROWDING</td>
<td>A ratio of the number of family members divided by the number of rooms in the home. Higher values indicate greater crowding.</td>
<td>0.698</td>
<td>0.477</td>
<td></td>
</tr>
<tr>
<td>SPACING</td>
<td>Constructed variable indicating the extent of spacing between children. Higher values indicate more spacing. Values have no direct interpretable meaning.</td>
<td>11.203</td>
<td>1.041</td>
<td></td>
</tr>
<tr>
<td>PSYCHFUN</td>
<td>Mother’s level of psychological functioning or, where no bother was present, the father’s. Higher values indicate greater degrees of disfunctioning.</td>
<td>3.841</td>
<td>1.563</td>
<td></td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>Dummy variable indicating whether mother or father had a substance abuse problem.</td>
<td>0.278</td>
<td>0.446</td>
<td></td>
</tr>
<tr>
<td>KIDSICK</td>
<td>Dummy variable indicating that one or more children had severe or chronic medical problems.</td>
<td>0.250</td>
<td>0.433</td>
<td></td>
</tr>
<tr>
<td>PRIORMAL</td>
<td>Dummy variable indicating that parents had a prior validated abuse or neglect complaint.</td>
<td>0.333</td>
<td>0.472</td>
<td></td>
</tr>
<tr>
<td>NPROBS</td>
<td>A count from the twelve problems areas in Section II indicating the number of areas in which a family was judged to have problems.</td>
<td>3.320</td>
<td>2.396</td>
<td></td>
</tr>
<tr>
<td>SEVERE</td>
<td>Severity of maltreatment as indicated by the ongoing workers in the overall assessment portion of Section II. One indicated no or minimal maltreatment and ten indicated extreme maltreatment were death of a child was probable.</td>
<td>4.894</td>
<td>2.593</td>
<td></td>
</tr>
</tbody>
</table>
Table 28

**Means and Standard Deviations for Subgroups**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (N=253)</th>
<th>Std Dev</th>
<th>Mean (N=69)</th>
<th>Std Dev</th>
<th>Mean (N=150)</th>
<th>Std Dev</th>
</tr>
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<tr>
<td>NONWHITE</td>
<td>0.245</td>
<td>0.431</td>
<td>0.333</td>
<td>0.475</td>
<td>0.207</td>
<td>0.406</td>
</tr>
<tr>
<td>SUBCULT</td>
<td>0.360</td>
<td>0.481</td>
<td>0.174</td>
<td>0.382</td>
<td>0.367</td>
<td>0.484</td>
</tr>
<tr>
<td>PARNTMAL</td>
<td>0.202</td>
<td>0.402</td>
<td>0.145</td>
<td>0.355</td>
<td>0.327</td>
<td>0.471</td>
</tr>
<tr>
<td>SINPARNT</td>
<td>0.545</td>
<td>0.499</td>
<td>0.333</td>
<td>0.475</td>
<td>0.413</td>
<td>0.494</td>
</tr>
<tr>
<td>DISABLED</td>
<td>0.174</td>
<td>0.380</td>
<td>0.087</td>
<td>0.284</td>
<td>0.093</td>
<td>0.292</td>
</tr>
<tr>
<td>KIDSICK</td>
<td>0.265</td>
<td>0.442</td>
<td>0.174</td>
<td>0.382</td>
<td>0.260</td>
<td>0.440</td>
</tr>
<tr>
<td>YRSEDC</td>
<td>10.411</td>
<td>2.108</td>
<td>11.623</td>
<td>2.120</td>
<td>10.460</td>
<td>2.089</td>
</tr>
<tr>
<td>CAREKNOW</td>
<td>0.221</td>
<td>0.416</td>
<td>0.087</td>
<td>0.284</td>
<td>0.287</td>
<td>0.454</td>
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<tr>
<td>BELOWPOV</td>
<td>0.186</td>
<td>0.781</td>
<td>-0.281</td>
<td>0.860</td>
<td>0.143</td>
<td>0.684</td>
</tr>
<tr>
<td>ISOLATE</td>
<td>6.794</td>
<td>1.947</td>
<td>7.188</td>
<td>2.334</td>
<td>6.707</td>
<td>1.870</td>
</tr>
<tr>
<td>STRESSZ</td>
<td>0.059</td>
<td>0.966</td>
<td>-0.322</td>
<td>0.906</td>
<td>0.060</td>
<td>1.073</td>
</tr>
<tr>
<td>CROWDING</td>
<td>0.907</td>
<td>0.509</td>
<td>0.777</td>
<td>0.367</td>
<td>0.939</td>
<td>0.459</td>
</tr>
<tr>
<td>SPACING</td>
<td>11.091</td>
<td>1.230</td>
<td>11.419</td>
<td>0.622</td>
<td>11.293</td>
<td>0.799</td>
</tr>
<tr>
<td>PSYCHFUN</td>
<td>3.877</td>
<td>1.534</td>
<td>2.899</td>
<td>1.487</td>
<td>4.213</td>
<td>1.477</td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>0.261</td>
<td>0.440</td>
<td>0.116</td>
<td>0.323</td>
<td>0.380</td>
<td>0.487</td>
</tr>
<tr>
<td>PRIRORMAL</td>
<td>0.324</td>
<td>0.469</td>
<td>0.188</td>
<td>0.394</td>
<td>0.413</td>
<td>0.494</td>
</tr>
<tr>
<td>NPOB5</td>
<td>3.253</td>
<td>2.151</td>
<td>1.638</td>
<td>0.985</td>
<td>4.207</td>
<td>2.759</td>
</tr>
<tr>
<td>SEVERE</td>
<td>5.217</td>
<td>2.194</td>
<td>1.217</td>
<td>0.415</td>
<td>6.040</td>
<td>2.296</td>
</tr>
</tbody>
</table>
Table 27 presents the symbol by which each variable will be identified in subsequent tables and figures. A description of each variable and variable means and standard deviations for the entire sample are also presented in Table 27. Table 28 presents the means and standard deviations for the three subgroups: neglecting families, abusing families, and those families that both abuse and neglect.

**THE PROBLEM WITH CORRELATION COEFFICIENTS**

The Pearson product-moment correlation coefficient is capable of summarizing the relationship between two variables where the underlying assumptions of the statistic concerning level, of measurement and distribution are not flagrantly violated. Table 29 presents the correlation matrix for the complete sample that was used for the analyses in this chapter. Tables 30 through 32 present the correlation matrixes for the three subgroups.

For a sample size of 472, the critical value of $r$, $P<=0.05$ is approximately 0.10. The matrix in Table 29 shows numerous coefficients that are equal to or greater than 0.10, where explanatory variables are correlated with the three outcome variables. However, there are also numerous significant coefficients among the explanatory variables. The same situation holds true for the other
three matrixes. As a result of the intercorrelations between the explanatory variables, the relationships of those variables to the outcome variables cannot be directly deciphered using Pearson coefficients.

A more complex analytic system, which like Pearson's correlation coefficient is derived from the general linear model, multiple regression analysis permits the partitioning of effects in data that have correlated explanatory variables. Cohen and Cohen (1983, p. 7) state that "the greatest virtue of (multiple regression) is its capacity to mirror, with high fidelity, the complexity of the relationships that characterize the behavior sciences." Because of this capacity, OLS regression is ideally suited for examining the system of implicit hypotheses among the 19 variables examined in this chapter.
### Correlation Matrix

| AGE | NONWHITE | SUBCULT | PARNTMAL | SINPARNT | DISABLED | KIDSICK | YRSEDUC | CAREKNOW | BELOWPOV | ISOLATE | STRESSZ | CROWDING | SPACING | PSYCHFUN | ALCOHOL | PRIORMAL | NPROBS | SEVERE |
|-----|----------|---------|----------|----------|----------|---------|---------|----------|----------|----------|---------|----------|----------|----------|---------|----------|--------|--------|--------|
| AGE | 1.000    |         |          |          |          |         |         |          |          |          |         |          |          |          |         |        |        |        |
| NONWHITE | -0.045 | 1.000    |         |          |          |         |         |          |          |          |         |          |          |          |         |        |        |        |
| SUBCULT | 0.072 | -0.040 | 1.000    |          |          |         |         |          |          |          |         |          |          |          |         |        |        |        |
| PARNTMAL | -0.065 | -0.070 | 0.267 | 1.000    |          |         |          |          |          |          |         |          |          |          |         |        |        |        |
| SINPARNT | 0.034 | 0.278 | -0.051 | -0.100 | 1.000    |          |         |          |          |          |         |          |          |          |         |        |        |        |
| DISABLED | 0.156 | 0.050 | 0.073 | 0.060 | 0.096 | 1.000    |         |          |          |          |         |          |          |          |         |        |        |        |
| KIDSICK | -0.001 | 0.011 | -0.047 | 0.027 | -0.056 | 0.014 | 1.000    |          |          |          |         |          |          |          |         |        |        |        |
| YRSEDUC | -0.002 | 0.113 | -0.132 | -0.164 | 0.040 | 0.106 | -0.056 | 1.000    |          |          |         |          |          |          |         |        |        |        |
| CAREKNOW | -0.075 | -0.057 | 0.074 | 0.204 | -0.100 | 0.011 | 0.056 | -0.178 | 1.000    |          |         |          |          |          |         |        |        |        |
| BELOWPOV | -0.166 | 0.149 | 0.147 | 0.190 | 0.181 | 0.040 | 0.075 | -0.228 | 0.058 | 1.000    |          |          |          |          |         |        |        |        |
| ISOLATE | 0.128 | 0.073 | -0.082 | 0.001 | 0.010 | 0.007 | 0.024 | -0.036 | -0.066 | -0.045 | 1.000    |          |          |          |         |        |        |        |
| STRESSZ | -0.145 | -0.052 | 0.062 | 0.167 | -0.067 | 0.092 | 0.065 | -0.063 | 0.052 | 0.192 | -0.003 | 1.000    |          |          |          |         |        |        |        |
| CROWDING | -0.091 | -0.021 | 0.073 | -0.038 | -0.244 | 0.014 | 0.132 | -0.134 | 0.091 | 0.238 | -0.059 | 0.059 | 1.000    |          |          |          |         |        |        |        |
| SPACING | 0.272 | -0.156 | -0.076 | -0.070 | 0.049 | 0.049 | 0.055 | 0.096 | -0.233 | 0.122 | -0.064 | 0.364 | 0.364 | 1.000    |          |          |          |         |        |        |        |
| PSYCHFUN | 0.077 | -0.005 | 0.144 | 0.171 | 0.215 | 0.246 | 0.040 | 0.123 | 0.185 | 0.311 | 0.156 | 0.286 | 0.027 | 0.156 | 1.000    |          |          |          |         |        |        |        |
| ALCOHOL | 0.076 | -0.039 | 0.152 | 0.084 | -0.056 | 0.059 | 0.006 | -0.147 | 0.044 | 0.024 | -0.012 | 0.224 | 0.024 | 0.224 | 0.125 | 1.000    |          |          |          |         |        |        |        |
| PRIORMAL | 0.133 | -0.037 | 0.109 | 0.164 | -0.069 | 0.101 | 0.068 | -0.187 | 0.286 | 0.059 | 0.013 | 0.149 | 0.125 | 0.125 | 0.125 | 0.125 | 1.000    |          |          |          |         |        |        |        |
| NPROBS | 0.039 | -0.159 | 0.216 | 0.317 | -0.107 | 0.069 | 0.009 | -0.247 | 0.189 | 0.130 | -0.011 | 0.261 | 0.136 | 0.136 | 0.136 | 0.136 | 0.136 | 1.000    |          |          |          |         |        |        |        |
| SEVERE | 0.061 | -0.072 | 0.188 | 0.092 | 0.033 | 0.045 | 0.126 | -0.283 | 0.230 | 0.196 | -0.038 | 0.188 | 0.142 | 0.142 | 0.142 | 0.142 | 0.142 | 0.142 | 1.000    |          |          |          |         |        |        |        |

*Table 29*
| Variable   | AGE_NONWHITE | SUBCULT | PARNTMAL | SINCMPARNT | DISABLED | KIDSICK | YRSEDUC | CAREKNQW | BELOWPOV | ISOLATE | STRESSZ | CROWDING | SPACING | PSYCHFUN | ALCOHOL | PRIORMAL | NPROBS | SEVERE | SPACING | PSYCHFUN | ALCOHOL | PRIORMAL | NPROBS | SEVERE |
|------------|--------------|---------|----------|------------|-----------|---------|---------|----------|----------|---------|---------|----------|---------|----------|---------|----------|--------|--------|--------|--------|--------|---------|--------|---------|--------|-------|
| AGE_NONWHITE | -0.068       |         |          |            |           |         |         |          |          |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| SUBCULT    | 0.053        | -0.044  |          |            |           |         |         |          |          |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| PARNTMAL   | -0.077       | 0.089   | 0.391    |            |           |         |         |          |          |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| SINCMPARNT | 0.071        | 0.252   | -0.033   | -0.135     |           |         |         |          |          |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| DISABLED   | 0.233        | 0.078   | 0.069    | 0.061      | 0.094     |         |         |          |          |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| KIDSICK    | -0.068       | 0.054   | -0.055   | 0.011      | -0.100    | 0.088   |         |          |          |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| YRSEDUC    | -0.054       | 0.042   | -0.006   | -0.133     | 0.059     | -0.107  | -0.009  |           |          |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| CAREKNQW   | -0.054       | 0.038   | 0.037    | 0.278      | -0.105    | -0.044  | 0.098   | -0.156   |           |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| BELOWPOV   | -0.129       | 0.146   | 0.007    | 0.032      | 0.006     | 0.062   | -0.177  | -0.077   |           |         |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| ISOLATE    | 0.097        | 0.050   | -0.038   | 0.002      | 0.071     | -0.048  | 0.054   | -0.067   | -0.042   | 0.094   |         |          |         |          |         |         |        |        |        |        |        |         |        |        |
| STRESSZ    | -0.166       | -0.002  | 0.025    | 0.204      | -0.045    | 0.095   | 0.097   | -0.054   | 0.006    | 0.190   | -0.015  |           |         |          |         |         |        |        |        |        |        |         |        |        |
| CROWDING   | -0.096       | -0.013  | 0.014    | -0.081     | -0.261    | 0.022   | 0.136   | -0.048   | -0.049   | 0.188   | -0.115  | 0.069   |           |         |          |        |        |        |        |        |         |        |        |
| SPACING    | 0.283        | -0.253  | -0.054   | -0.040     | 0.058     | 0.029   | -0.160  | -0.014   | 0.079    | -0.214  | 0.144   | -0.065  | -0.338  |           |         |        |        |        |        |        |         |        |        |
| PSYCHFUN   | 0.031        | 0.040   | 0.228    | 0.240      | 0.051     | 0.268   | 0.063   | -0.045   | 0.211    | 0.024   | 0.119   | 0.235   | -0.047  |           |         |        |        |        |        |        |         |        |        |
| ALCOHOL    | 0.115        | -0.045  | 0.042    | -0.007     | -0.018    | 0.036   | -0.112  | -0.078   | -0.057   | -0.038  | -0.132  | 0.146   | -0.021  |           |         |        |        |        |        |        |         |        |        |
| PRIORMAL   | 0.125        | -0.061  | 0.150    | 0.199      | -0.012    | 0.150   | 0.025   | -0.153   | 0.241    | 0.012   | 0.034   | 0.148   | 0.102   |           |         |        |        |        |        |        |         |        |        |
| NPROBS     | 0.082        | -0.136  | 0.203    | 0.354      | -0.111    | 0.082   | 0.059   | -0.090   | 0.159    | 0.003   | -0.020  | 0.159   | 0.039   |           |         |        |        |        |        |        |         |        |        |
| SEVERE     | 0.131        | -0.018  | 0.087    | 0.139      | -0.149    | 0.097   | 0.116   | -0.130   | 0.186    | 0.018   | -0.010  | 0.130   | 0.056   |           |         |        |        |        |        |        |         |        |        |

**Correlation Matrix for Neglecting Subsample (N = 253)**
### Correlation Matrix for Abusing Subsample

<table>
<thead>
<tr>
<th></th>
<th>NONWHITE</th>
<th>SUBCULT</th>
<th>PARNTNAL</th>
<th>SINVAPNT</th>
<th>DISABLE</th>
<th>KIDSICK</th>
<th>YRSEDUC</th>
<th>CAREKNOW</th>
<th>BELOWPOV</th>
<th>ISOLATE</th>
<th>STRESSZ</th>
<th>CROWDING</th>
<th>SPACING</th>
<th>PSYCHFUN</th>
<th>ALCOHOL</th>
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<th>NPROBS</th>
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<th>SPACING</th>
<th>PSYCHFUN</th>
<th>ALCOHOL</th>
<th>PRIORMAL</th>
<th>NPROBS</th>
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</thead>
<tbody>
<tr>
<td>NONWHITE</td>
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<td>0.148</td>
<td>-0.800</td>
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</tr>
<tr>
<td>KIDSICK</td>
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<tr>
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</tr>
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<td>-0.177</td>
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<td>-0.158</td>
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<tr>
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<td>0.178</td>
<td>0.195</td>
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<th>PRIORMAL</th>
<th>NPROBS</th>
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<tr>
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<tr>
<td>NPROBS</td>
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<td>SEVERE</td>
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<td>SUBCULT</td>
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<td>SINPARENT</td>
<td>DISABLED</td>
</tr>
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<td>SUBCULT</td>
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<td>PARENT1</td>
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<td>0.009</td>
<td>0.021</td>
<td>0.103</td>
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<tr>
<td>KIDSICK</td>
<td>0.122</td>
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<td>-0.092</td>
<td>0.041</td>
<td>-0.385</td>
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<tr>
<td>YRSERED</td>
<td>0.111</td>
<td>0.132</td>
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<td>-0.181</td>
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<td>0.079</td>
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<td>-0.143</td>
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<tr>
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<td>0.071</td>
<td>-0.027</td>
<td>-0.058</td>
<td>-0.042</td>
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<tr>
<td>PSYCHFUN</td>
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<td>-0.014</td>
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</tr>
<tr>
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<td>0.122</td>
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<td>0.040</td>
<td>-0.021</td>
<td>0.058</td>
<td>0.033</td>
</tr>
<tr>
<td>NPROBS</td>
<td>-0.083</td>
<td>-0.164</td>
<td>0.205</td>
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<td>-0.152</td>
</tr>
<tr>
<td>SEVERE</td>
<td>0.066</td>
<td>-0.031</td>
<td>0.216</td>
<td>0.238</td>
<td>-0.059</td>
</tr>
</tbody>
</table>

**Table 32**

Correlation Matrix for "Both" Subsample

(N = 150)
INTERPRETING STANDARDIZED PARTIAL REGRESSION COEFFICIENTS

The easiest way in which to characterize the meaning of OLS betas is by viewing them as representing the average net effects for variables in the regression equation. The net effects are unique effects, representing explained variance shared with no other explanatory variables. They represent average effects because of the nature of linear estimation across different data values. Therefore, when in discussion it is stated that a particular amount of increase in an explanatory variable resulted in a certain increase in an outcome variable, it must be understood that the statement speaks to the average case, not every case. The statistic is descriptive of a group of cases in a summary sense, not of particular cases taken individually.

MULTIPLE REGRESSION RESULTS

Table 33 presents estimates from the complete sample for the 16 explanatory variables regressed on the three outcome variables. Examination of the effects on prior maltreatment (PRIORTREAT) shows that CAREKNOW, the dummy variable indicating generally deficient child care knowledge, had by far the largest effect. AGE was also statistically significant. That parent age was statistically significant was not unexpected in that older parents have
Table 33

Regression Results for Outcome Variables Entire Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prior Maltreatment</th>
<th>Number of Problems</th>
<th>Overall Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>-0.109 (-0.3)</td>
<td>2.809 (2.0)*</td>
<td>4.956 (3.2)**</td>
</tr>
<tr>
<td>AGE</td>
<td>0.006 (2.8)**</td>
<td>0.013 (1.2)</td>
<td>0.028 (2.2)*</td>
</tr>
<tr>
<td>NONWHITE</td>
<td>0.003 (0.0)</td>
<td>-0.575 (-2.4)*</td>
<td>-0.213 (-0.8)</td>
</tr>
<tr>
<td>SUBCULT</td>
<td>0.027 (0.6)</td>
<td>0.471 (2.2)*</td>
<td>0.325 (1.3)</td>
</tr>
<tr>
<td>PARNTMAL</td>
<td>0.070 (1.3)</td>
<td>0.983 (4.0)****</td>
<td>0.389 (1.4)</td>
</tr>
<tr>
<td>YRSEDC</td>
<td>-0.022 (-2.1)*</td>
<td>-0.113 (-2.4)*</td>
<td>-0.189 (-3.5)***</td>
</tr>
<tr>
<td>CAREKNOW</td>
<td>0.238 (4.5)****</td>
<td>0.236 (0.9)</td>
<td>0.778 (2.8)**</td>
</tr>
<tr>
<td>DISABLED</td>
<td>0.020 (0.3)</td>
<td>-0.315 (-1.1)</td>
<td>-0.536 (-1.6)</td>
</tr>
<tr>
<td>KIDSICK</td>
<td>0.023 (0.4)</td>
<td>0.380 (1.7)</td>
<td>0.570 (2.2)*</td>
</tr>
<tr>
<td>SINPARNT</td>
<td>0.033 (0.7)</td>
<td>-0.068 (-0.3)</td>
<td>0.161 (0.7)</td>
</tr>
<tr>
<td>PCTOFPOV</td>
<td>-0.012 (-0.4)</td>
<td>0.123 (0.9)</td>
<td>0.340 (2.2)*</td>
</tr>
<tr>
<td>ISOLATE</td>
<td>0.000 (-0.0)</td>
<td>-0.041 (-0.8)</td>
<td>-0.077 (-1.3)</td>
</tr>
<tr>
<td>STRESSZ</td>
<td>0.049 (2.1)*</td>
<td>0.235 (2.3)*</td>
<td>0.136 (1.1)</td>
</tr>
<tr>
<td>CROWDING</td>
<td>0.136 (2.8)**</td>
<td>0.409 (1.8)</td>
<td>0.448 (1.7)</td>
</tr>
<tr>
<td>SPACING</td>
<td>0.011 (0.5)</td>
<td>-0.076 (-0.7)</td>
<td>-0.079 (-0.6)</td>
</tr>
<tr>
<td>PSYCHFUN</td>
<td>0.029 (1.9)</td>
<td>0.365 (5.4)****</td>
<td>0.345 (4.5)****</td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>0.004 (0.1)</td>
<td>0.882 (4.0)****</td>
<td>0.890 (3.5)***</td>
</tr>
<tr>
<td>R-square</td>
<td>0.1569***</td>
<td>0.3265***</td>
<td>0.2632***</td>
</tr>
</tbody>
</table>

* P <= 0.0500
** P <= 0.0100
*** P <= 0.0010
**** P <= 0.0001

Note: Values are partial regression coefficients, with associated "t" statistics in parentheses.
had more opportunities, temporally, to be identified as maltreating. It should be noted that compared to the dummy variable CAREKNOW being 1, it would require 35 years of age to yield the same magnitude of effect, or roughly the difference between an 18-year-old and a 53-year-old parent.

CROWDING was also statistically significant, with the effect for the difference between having two rooms per person in a family and having two persons per room being 0.21. Although statistically significant, the actual magnitude of effects for STRESSZ and YBSEDUC were comparatively small.

There were three strong and significant effects for the number of problems present in a family (NPROBS). Two dummy coded variables, PARNTMAll and ALCOHOL, each had roughly the effect of adding one problem to the count for a family whenever present. For PSYCHFUN, the difference between having no problems and having subclinical symptoms, three points on the measurement scale, had the effect of adding one problem. Two other dummy variables, NONWHITE and SUBCULT, each had the effect of adding about one half problem. As a result, being white and having behaviors and beliefs affected by subcultural influences tended to add one problem to a family's recorded count. With respect to YBSEDUC, an individual who had two years of education beyond high school on average had one-half fewer problems than an individual who dropped out of high school in the 10th grade.
The effects for PSYCHFUN and ALCOHOL on overall maltreatment severity (SEVERE) were almost identical in magnitude to their effects on NPROBS, only the outcome measure was in units of severity rather than a count of problems. Two dummy variables, CAREKNOW and KIDSICK, had sizable effects. Being generally deficient in child care knowledge resulted in about three-quarters of a unit of severity increase and having a chronic or severely ill child resulted in slightly more than one-half of a unit increase. An individual who had two years of schooling beyond high school was found to be on average one unit less severely maltreating than an individual who dropped out of high school in the 10th grade.

AGE and PCTOFPOV also had statistically significant effects on severity. The difference between a twenty-year-old and a thirty-year-old mother was an increase of 0.336 severity units. As compared with families that had incomes double the poverty level, families that had incomes which were half the poverty level tended to be one half of a unit higher on the severity measure.

R-squares for all three outcome variables were highly statistically significant. The model accounted for about one third of the variance for NPROBS, about one fourth for SEVERE, and about 16 percent for PRIORMAL.
For the most part, the structure of effects observed in the complete sample held for the neglecting and the both abusing and neglecting subgroups. The results for the abusing subgroup differed. The main differences arose from variables failing to achieve statistical significance, a situation that is in part due to the loss of degrees of freedom in the subgroup analyses. Additionally, Cohen and Cohen (1975) have argued that multiple regression should not be used when the number of control variables exceeds the number of cases divided by 10. When this is done the parameter estimates are more subject to dramatic change in cross-validation analyses. This was an issue of concern for the abusing subgroup.

In that only 69 abuse cases were present in the sample, the subgroup analyses for this group must be interpreted with care. Although the assessments of statistical significance for the abuse subgroup are valid statistical results, a better approach to examining this subgroup's results might well be realized through inspection of the actual coefficients without regard for significance testing. In this way, the results represent descriptions of the subsample only, and cannot be used to infer directly to the population from which the data were drawn.

By viewing the abusers' weights in this manner, the structure of results appears somewhat different from the
other two groups. CAREKNOW, DISABLED, KIDSICK, and CROWDING were all positively related to prior validated maltreatment, while PCTOPPOV was inversely related. The coefficient for PCTOPPOV indicates that in the abusing subgroup, those with relatively higher levels of income were more likely to have a prior validated charge of maltreatment.

Examining the results for the number of problems present in the abusing subgroup shows that PSYCHFUN, ALCOHOL, and YRSEDUC were positively related to increased numbers of problems. Also positively related were not having a subcultural influence on maltreating behaviors and not being disabled. For severity of maltreatment, DISABLED was related to lesser levels of severity while ALCOHOL was related to greater levels of severity.
Table 34

Regression Results for Outcome Variables
Neglecting Subsample

(N=223)

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<tr>
<th>Outcome Variable</th>
<th>Prior Number of Maltreatment</th>
<th>Overall Problems</th>
<th>Overall Severity</th>
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<tr>
<td>INTERCEPT</td>
<td>0.124 (0.3)</td>
<td>1.457 (0.6)</td>
<td>4.527 (2.5)*</td>
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<tr>
<td>AGE</td>
<td>0.006 (2.1)*</td>
<td>0.022 (1.6)</td>
<td>0.035 (2.4)*</td>
</tr>
<tr>
<td>NONWHITE</td>
<td>-0.071 (-1.0)</td>
<td>-0.544 (-1.7)</td>
<td>0.165 (0.4)</td>
</tr>
<tr>
<td>SUBCULT</td>
<td>0.089 (1.4)</td>
<td>0.444 (1.6)</td>
<td>0.193 (0.6)</td>
</tr>
<tr>
<td>PARNTMAL</td>
<td>0.088 (1.1)</td>
<td>1.413 (4.0)****</td>
<td>0.185 (0.4)</td>
</tr>
<tr>
<td>YRSEDUC</td>
<td>-0.018 (-1.3)</td>
<td>-0.005 (-0.0)</td>
<td>-0.066 (-1.0)</td>
</tr>
<tr>
<td>CAREKNOW</td>
<td>0.235 (3.1)***</td>
<td>0.289 (0.8)</td>
<td>0.798 (2.2)**</td>
</tr>
<tr>
<td>DISABLED</td>
<td>0.090 (1.1)</td>
<td>-0.090 (-0.2)</td>
<td>0.152 (0.4)</td>
</tr>
<tr>
<td>KIDSICK</td>
<td>-0.022 (-0.3)</td>
<td>0.235 (0.8)</td>
<td>0.476 (1.5)</td>
</tr>
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<td>SINPARNT</td>
<td>0.061 (1.0)</td>
<td>-0.021 (-0.0)</td>
<td>-0.539 (-1.8)</td>
</tr>
<tr>
<td>PCTOFPOV</td>
<td>-0.020 (-0.5)</td>
<td>-0.033 (-0.1)</td>
<td>0.007 (0.0)</td>
</tr>
<tr>
<td>ISOLATE</td>
<td>0.009 (0.5)</td>
<td>0.003 (0.0)</td>
<td>0.005 (0.0)</td>
</tr>
<tr>
<td>STRESSZ</td>
<td>0.059 (1.8)</td>
<td>0.080 (0.5)</td>
<td>0.172 (1.1)</td>
</tr>
<tr>
<td>CROWDING</td>
<td>0.114 (1.7)</td>
<td>0.479 (1.7)</td>
<td>0.135 (0.4)</td>
</tr>
<tr>
<td>SPACING</td>
<td>-0.017 (-0.6)</td>
<td>-0.082 (-0.6)</td>
<td>-0.071 (-0.5)</td>
</tr>
<tr>
<td>PSYCHFUN</td>
<td>0.022 (1.0)</td>
<td>0.257 (2.8)**</td>
<td>0.151 (1.5)</td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>-0.051 (-0.7)</td>
<td>0.760 (2.5)***</td>
<td>0.715 (2.2)*</td>
</tr>
<tr>
<td>R-square</td>
<td>0.1755***</td>
<td>0.2472****</td>
<td>0.1532**</td>
</tr>
</tbody>
</table>

* P <= 0.0500
** P <= 0.0100
*** P <= 0.0010
**** P <= 0.0001

Note: values are partial regression coefficients, with associated "t" statistics in parentheses.
### Table 35

**Regression Results for Outcome Variables**  
**Abusing Subsample**  
(N=69)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prior Number of Maltreatment</th>
<th>Overall Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>-1.243 (-1.2)</td>
<td>3.545 (2.9)**</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.005 (-0.9)</td>
<td>0.004 (0.6)</td>
</tr>
<tr>
<td>NONWHITE</td>
<td>0.062 (0.5)</td>
<td>-0.092 (-0.6)</td>
</tr>
<tr>
<td>SUBCULT</td>
<td>0.089 (0.5)</td>
<td>-0.083 (-0.4)</td>
</tr>
<tr>
<td>PARNTMAL</td>
<td>0.110 (0.7)</td>
<td>0.023 (0.1)</td>
</tr>
<tr>
<td>YRSEDUC</td>
<td>-0.003 (-0.1)</td>
<td>-0.042 (-1.3)</td>
</tr>
<tr>
<td>CAREKNOW</td>
<td>0.252 (1.2)</td>
<td>0.060 (0.2)</td>
</tr>
<tr>
<td>DISABLED</td>
<td>0.382 (2.0)*</td>
<td>-0.350 (-1.5)</td>
</tr>
<tr>
<td>KIDSICK</td>
<td>0.317 (2.5)*</td>
<td>-0.027 (-0.1)</td>
</tr>
<tr>
<td>SINPARNT</td>
<td>-0.143 (-1.4)</td>
<td>0.010 (0.0)</td>
</tr>
<tr>
<td>PCTOFPOV</td>
<td>-0.134 (-2.1)*</td>
<td>-0.012 (-0.1)</td>
</tr>
<tr>
<td>ISOLATE</td>
<td>0.012 (0.5)</td>
<td>0.010 (0.3)</td>
</tr>
<tr>
<td>STRESSZ</td>
<td>0.009 (0.1)</td>
<td>0.021 (0.3)</td>
</tr>
<tr>
<td>CROWDING</td>
<td>0.379 (2.6)*</td>
<td>0.080 (0.4)</td>
</tr>
<tr>
<td>SPACING</td>
<td>0.108 (1.4)</td>
<td>-0.193 (-2.0)*</td>
</tr>
<tr>
<td>PSYCHFUN</td>
<td>-0.041 (-0.9)</td>
<td>0.033 (0.6)</td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>0.134 (0.6)</td>
<td>0.245 (1.2)</td>
</tr>
<tr>
<td>R-square</td>
<td>0.4728**</td>
<td>0.2733</td>
</tr>
</tbody>
</table>

* P <= 0.0500  
** P <= 0.0100  
*** P <= 0.0010  
**** P <= 0.0001

Note: values are partial regression coefficients, with associated "t" statistics in parentheses.
Table 36
Regression Results for Outcome Variables
Both Abusing and Neglecting Subsample
(N=150)

<table>
<thead>
<tr>
<th>Outcome Variable</th>
<th>Prior Maltreatment</th>
<th>Number of Problems</th>
<th>Overall Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>-0.359 (-0.5)</td>
<td>5.402 (1.9)*</td>
<td>5.695 (1.8)</td>
</tr>
<tr>
<td>AGE</td>
<td>0.010 (2.0)*</td>
<td>-0.012 (-0.5)</td>
<td>0.024 (1.0)</td>
</tr>
<tr>
<td>NONWHITE</td>
<td>0.077 (0.7)</td>
<td>-0.331 (-0.6)</td>
<td>0.217 (0.4)</td>
</tr>
<tr>
<td>SUBCULT</td>
<td>-0.132 (-1.5)</td>
<td>0.706 (1.7)</td>
<td>0.380 (1.0)</td>
</tr>
<tr>
<td>PARNTMAL</td>
<td>0.007 (0.0)</td>
<td>0.570 (1.3)</td>
<td>0.603 (1.5)</td>
</tr>
<tr>
<td>YRSEDUC</td>
<td>-0.034 (-1.6)</td>
<td>-0.364 (-3.7)***</td>
<td>-0.308 (-3.4)***</td>
</tr>
<tr>
<td>CAREKNOW</td>
<td>0.232 (2.5)*</td>
<td>-0.086 (-0.1)</td>
<td>0.439 (1.1)</td>
</tr>
<tr>
<td>DISABLED</td>
<td>-0.196 (-1.3)</td>
<td>-0.338 (-0.5)</td>
<td>-1.401 (-2.3)*</td>
</tr>
<tr>
<td>KIDSICK</td>
<td>0.012 (0.1)</td>
<td>0.686 (1.5)</td>
<td>0.343 (0.8)</td>
</tr>
<tr>
<td>SINPARNT</td>
<td>0.049 (0.5)</td>
<td>-0.484 (-1.1)</td>
<td>-0.084 (-0.2)</td>
</tr>
<tr>
<td>PCTOFPPOV</td>
<td>0.081 (1.1)</td>
<td>0.352 (1.0)</td>
<td>0.506 (1.7)</td>
</tr>
<tr>
<td>ISOLATE</td>
<td>-0.012 (-0.5)</td>
<td>-0.013 (-0.1)</td>
<td>0.037 (0.4)</td>
</tr>
<tr>
<td>STRESSZ</td>
<td>0.029 (0.7)</td>
<td>0.412 (2.1)*</td>
<td>0.065 (0.3)</td>
</tr>
<tr>
<td>CROWDING</td>
<td>0.118 (1.1)</td>
<td>0.191 (0.4)</td>
<td>0.378 (0.8)</td>
</tr>
<tr>
<td>SPACING</td>
<td>0.047 (0.8)</td>
<td>-0.079 (-0.2)</td>
<td>0.030 (0.1)</td>
</tr>
<tr>
<td>PSYCHFUN</td>
<td>0.046 (1.5)</td>
<td>0.501 (3.4)***</td>
<td>0.327 (2.4)*</td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>0.059 (0.6)</td>
<td>0.508 (1.1)</td>
<td>0.322 (0.8)</td>
</tr>
<tr>
<td>R-square</td>
<td>0.1795</td>
<td>0.4186***</td>
<td>0.3168***</td>
</tr>
</tbody>
</table>

* P <= 0.0500
** P <= 0.0100
*** P <= 0.0010
**** P <= 0.0001

Note: values are partial regression coefficients, with associated "t" statistics in parentheses.
THE FULL MODEL

The models that have been discussed to this point present an incomplete picture of maltreatment as it is described in literature. Although PRIORMAL and NPROBS are reasonable and valid outcome measures, they are also framed as causal in literature. Table 37 presents the results of the model including these two variables to explain SEVERE. Results are presented for the complete sample as well as the three subgroups.

Although these two variables are outcome measures, there should be no analytic problems due to simultaneity. To be sure, PRIORMAL occurred before SEVERE and, most likely, the count of problems present in the family. Also, it should be safe to assume that the problems related to maltreatment in the family occurred before the consequences of maltreatment. If these assumptions are true, OLS regression will provide unbiased estimates, thus negating the need for such procedures as two-stage estimation.

Interestingly, many of the variables identified in the literature as being significant causal factors failed to achieve statistical significance even though many had non-trivial coefficients in the correlation matrixes and some had attained statistical significance in the restricted model. This occurrence is probably not due to some of the more subtle problems that can plague regression analysis.
Table 37
Regression Results for Maltreatment Severity
Full Model
Complete Sample and All Subsamples

<table>
<thead>
<tr>
<th>Variable</th>
<th>Complete Sample</th>
<th>Neglecting Sample</th>
<th>Abusing Sample</th>
<th>Both Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>3.1152 (2.3)</td>
<td>3.1974 (2.6)</td>
<td>3.4282 (2.8)</td>
<td>3.3717 (2.7)</td>
</tr>
<tr>
<td>AGE</td>
<td>0.0157 (1.1)</td>
<td>0.0356 (1.7)</td>
<td>0.0279 (1.3)</td>
<td>0.0176 (1.6)</td>
</tr>
<tr>
<td>MOTHER</td>
<td>2.0591 (1.1)</td>
<td>-0.0296 (-0.7)</td>
<td>0.3593 (1.7)</td>
<td>0.0388 (0.2)</td>
</tr>
<tr>
<td>SUBEDE</td>
<td>-0.1637 (-0.3)</td>
<td>-0.0355 (-0.4)</td>
<td>0.1367 (0.3)</td>
<td>0.0681 (0.4)</td>
</tr>
<tr>
<td>PARENTAL</td>
<td>-2.1399 (-1.3)</td>
<td>-0.2188 (0.0)</td>
<td>0.3506 (1.1)</td>
<td>-0.1132 (-0.5)</td>
</tr>
<tr>
<td>YNEDUC</td>
<td>0.0441 (0.7)</td>
<td>-0.0467 (-1.2)</td>
<td>0.1738 (-2.0)</td>
<td>-0.1219 (-2.0)</td>
</tr>
<tr>
<td>ABUSE</td>
<td>-0.1816 (1.1)</td>
<td>0.1932 (0.3)</td>
<td>0.0445 (0.3)</td>
<td>0.2788 (0.1)</td>
</tr>
<tr>
<td>DISPEDE</td>
<td>0.0389 (1.1)</td>
<td>-0.1399 (-1.5)</td>
<td>-1.2404 (-2.2)</td>
<td>-0.1789 (-2.0)</td>
</tr>
<tr>
<td>DISYMTY</td>
<td>-0.0488 (-1.0)</td>
<td>0.0478 (0.2)</td>
<td>0.1757 (0.2)</td>
<td>-0.0682 (0.7)</td>
</tr>
<tr>
<td>SDTRFUV</td>
<td>-0.0431 (-2.2)</td>
<td>0.0606 (2.0)</td>
<td>0.2715 (1.3)</td>
<td>0.0293 (2.1)</td>
</tr>
<tr>
<td>YNEDUC</td>
<td>0.0152 (-2.3)</td>
<td>-0.2182 (0.1)</td>
<td>0.0857 (0.2)</td>
<td>0.1781 (0.5)</td>
</tr>
<tr>
<td>DEDGE</td>
<td>-0.1278 (-5.6)</td>
<td>0.0522 (0.2)</td>
<td>0.2379 (0.7)</td>
<td>0.1584 (0.7)</td>
</tr>
<tr>
<td>SAMPLING</td>
<td>-0.1999 (-2.3)</td>
<td>-0.1299 (-0.2)</td>
<td>0.0244 (0.2)</td>
<td>-0.0511 (-0.5)</td>
</tr>
<tr>
<td>PSYCHFLA</td>
<td>0.6431 (2.0)</td>
<td>0.6431 (2.7)</td>
<td>0.7431 (0.4)</td>
<td>0.7431 (2.7)</td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>0.2765 (1.6)</td>
<td>0.4267 (1.1)</td>
<td>0.1332 (0.3)</td>
<td>0.3735 (2.1)</td>
</tr>
<tr>
<td>PARENTAL</td>
<td>-0.1518 (2.8)</td>
<td>0.2733 (2.4)</td>
<td>0.2946 (0.2)</td>
<td>0.4090 (2.9)</td>
</tr>
<tr>
<td>VOBSE</td>
<td>-0.1056 (1.1)</td>
<td>-0.0179 (-0.2)</td>
<td>0.0756 (0.2)</td>
<td>0.1131 (0.3)</td>
</tr>
</tbody>
</table>

| p-values | 0.0000 | 0.3614 | 0.3773 | 0.4291 |

* = p < 0.05
** = p < 0.01
*** = p < 0.005
**** = p < 0.001

Note: Values are partial regression coefficients, with associated t-statistics in parentheses.
An examination of the residual plots showed normally distributed residuals, suggesting that dramatic mis-specification of the model or correlated error terms were not a problem. More likely, the change in the pattern of statistical significance for the full model estimates is the result of decreased semipartial coefficients brought about by the presence of NPROBS and PRIORMAL. This confounding of effects would be due to the structure of their correlations with the other regressors in addition to the intercorrelation among the other regressors already noted.

A Problem with OLS Using Simultaneous Entry

Classic simultaneous entry of variables in an OLS regression model can yield misleading results since unsuspected spuriousness in the structure of the relationships among variables can go unrecognized. This can have the effect of making an explanatory variable, which is to a great degree a function of another explanatory variable, appear as a significant effect while the variable that "caused" it might fail to achieve significance. Cohen and Cohen (1983) suggest that the use of hierarchical entry of variables in order of temporal or theoretically designated causal precedence is an excellent analytic approach for controlling spuriousness.
While hierarchical entry controls for spuriousness and thus provides more insight to interpretation, it, too, has a serious limitation. Variables must be entered in serial order either individually or in sets. This approach to analysis is not capable of doing justice to more complex hypothetical structures.

**PATH ANALYSIS**

The analysis thus far has examined association between various "cause" variables and maltreatment outcomes. This has been done within the limitations noted above. The intent of this study was to cast data in a causal framework and test the validity of prevailing theoretical conceptions of child maltreatment. To facilitate this testing, path analysis, a special application of OLS regression, was employed to circumvent the limitation discussed above. Heise (1975, p. 111) notes that "(m)ost causal analyses in the social sciences are conducted within the framework of cross-sectional statics," as was this study. He continues to argue that path analysis represents a useful tool for the examination of causality in such a framework.

Path analysis was the tool employed by Seaburg (1980) in his effort to examine various conceptions of maltreatment causation using data collected by Gil (1970). Although his secondary analysis was limited by problems
such as the manner in which variables were measured, his general analytic approach provided a framework for conceptualizing the analysis in this study.

**ISSUES CONNECTED WITH CAUSAL ANALYSIS**

**Cause**

The most significant issue arising from causal analysis is the specification of cause. The philosophical considerations of cause and effect are complex and will not be dealt with at length in this context. Taylor (1967) discusses the differing philosophical perspectives on causation in the Encyclopedia of Philosophy.

Heise (1975), Blalock (1964), and Asher (1983) each offer a discussion of causation in the context of social science data analysis. Three general criteria are discussed by each of these authors as being necessary for any inference of causality:

1. covariation between any two variables where one is identified as causing the other;
2. temporal order that is either implicit or delineated by theory, whereby a cause always precedes an effect; and,
3. relevant variables that are not absent from the causal system, thus insure that the hypothesized cause and effect are not both a function of yet another, unmeasured causal factor.
These three criteria have been addressed with respect to the analyses to be presented in the following pages. First, the correlation matrixes provided a basis for determining covariation. Secondly, implicit time ordering and the general structure of the theories considered in the context of this study provided the order that determined the initial structure for the models. Lastly, to the extent of the adequacy of literature addressing child maltreatment, a substantial number of potentially relevant variables have been measured.

**The Best Model**

A critical issue in interpreting the results of a path analysis is that no model can be proven correct or true. This must be understood. Causal analysis techniques such as path analysis enable an investigator to determine if a hypothesized set of causal linkages are empirically supported by a data set. However, finding empirical support does not out of hand indicate that a causal configuration is valid. In short, causal analysis can identify models not supported by data, but cannot "prove" a model's validity by finding that it is supported by data. It is because of this limitation that the Tobacco Institute can continue to claim that it has yet to be proven that cigarette smoking causes cancer. Therefore, it must be remembered that the best model which emerges from analysis may not, in
fact, reflect the true structure of factors operating in maltreatment causation.

**Distributional Limitations**

Two aspects of variable distributions affect correlation coefficients, and hence any analysis, such as path analysis, that is built upon them. First is the problem of restricted range. In that this study only examined families in which maltreatment was confirmed, nonmaltreating families were not included. Because of this, the range of variation for the severity measure and the count of problems was restricted, excluding no harm and no problem families. Cohen and Cohen (1983) note that restricting the range of variation for a variable tends to result in correlation coefficients that underestimate the magnitude of relationship in a population wherein the variable is free to vary.

The second problem arises from different distributional shapes across variables. This is particularly obvious in the case of dummy variables. Cohen and Cohen (1983) observe that as the shapes of two distributions become more dissimilar, the magnitude of the highest possible correlation coefficient shrinks away from plus or minus one. As in the case of restricted range of variation, the effect is to find coefficients that underestimate the true degree of relationship.
Although the effects of these limitations are unavoidable, the bias they introduce is tolerable in that any error will tend to that of underestimation of effects or failure to detect effects, rather than identifying effects that do not actually exist.

**Note about Initial Structure of Models**

Perhaps the largest difficulty confronting this analysis was constructing models that would do justice to the four theoretical domains. The first decisions had to do with which variables would be included in each of the four models. Sweet and Besick's (1979) article provided significant guidance, as well as those by Gelles (1975) and numerous other authors. The second decision addressed temporal order within the models. The authors mentioned above and authors addressing a specific theory, such as Bandura (1977), provided the guidance for positioning the different variables in the models beyond logical time order, as well as where the initial linkages would be drawn.

The initial linkage structure was the least problematic issue. The computer program used for analysis, the Interactive Path Analyser (IPA), provided a residual correlation matrix after an analysis so that a researcher may identify larger coefficients that have not been explained in the model. After this identification, a model could be revised and reanalyzed. Because of this, factors included
in models that had been identified as being casual in literature were almost all initially linked to the three outcome variables.

By proceeding in this manner, an exploratory analysis such as the one in this study can be carried forward without agonizing at length over the linkage structure of the model to be analyzed, once the temporal position of variables has been decided. Although such specification is not an ideal analytic approach, "model building without full information on causal priorities may be justified as a way of summarizing present knowledge in order to guide future research" (Seaburg, 1980, p. 40). It should be noted that in presenting the results for these analyses, linkages to and from endogenous variables that proved to be dead ends, not affecting any other variables, were deleted for clarity in the figures.
Figure 1: Initial Configuration for Psychodynamic Model
THE PSYCHODYNAMIC MODEL

Figure 1 shows the initial model tested for the psychodynamic conception of child maltreatment. The model is quite simple, probably more simple than advocates of psychodynamic causality would posit. However, the bottom line for writers such as Helfer and Kempe (1976) and Polansky, et al. (1968) is that maltreatment occurs because of the mother's poor psychological functioning. The model in Figure 1 states that prior confirmed maltreatment, the number of problems present in a family and the severity of maltreatment are all the result of the mother's level of psychological functioning (father's in the case of a male headed single parent household). The model further indicates that the effect of psychological functioning is carried indirectly through PRIORMAL and NPROBS.

Figure 2 presents the results for the complete sample. While psychological functioning was found to be directly related to both PRIORMAL and NPROBS, no significant direct effect was found on SEVERE. The total indirect effect on SEVERE from PSYCHFUN was 0.227, while the total direct and indirect effects of PRIORMAL and NPROBS were 0.298 and 0.525 respectively. As shown in Figure 3, this pattern held true for the neglect subgroup. However, the total effect of PSYCHFUN was less at 0.158. The total effects for PRIORMAL and NPROBS were 0.354 and 0.404 respectively.
Figure 2: Results for Psychodynamic Model, Complete Sample
Figure 3: Results for Psychodynamic Model, Neglecting Sub-sample
Figure 4: Results for Psychodynamic Model, Abusing Subsample

PRIOR | 0.269 | NPROBS

PSYCHFUN | 0.507 | SEVERE
Figure 5: Results for Psychodynamic Model for Both Abusing and Neglecting Subsample
Figure 4 shows the results for the abusing subsample, which were notably different from the neglecting subsample. The abusing subsample demonstrated a strong direct effect from PSYCHFUN on maltreatment severity. However, it had no effect on either PRIORMAL or NPROBS. Further, PRIORMAL and NPROBS demonstrated no effect on SEVERE, although PRIORMAL did affect the number of problems present in a family.

The families that both abused and neglected showed yet a different configuration. As in the overall and neglect analyses, no direct effect was observed for psychological functioning on severity of maltreatment. However, unlike those analyses, no direct effect was observed for PSYCHFUN on PRIORMAL. The total indirect effect of PSYCHFUN on SEVERE was 0.172. The total indirect effect of PRIORMAL on SEVERE was 0.145, while the direct effect of NPROBS was a strong 0.569.

Summarizing these four analyses, it is clear that with the exception of the 69 abuse cases, the effect of parental psychological functioning on maltreatment severity is realized indirectly only insofar as it affects the occurrence of prior maltreatment events and the number of problems present in a family.
THE LEARNING THEORY MODEL

The initial model used to test the learning theory conception of maltreatment causation is presented in Figure 6. Two variables would be expected to carry background information about what the parents experienced with respect to child rearing in their own childhood: SUBCULT and PARNTMAL. The measure of years of education, YRSEDUC, was included as was CAREKNOW, the dummy variable indicating generally deficient child care knowledge.

Figure 7 shows the results of the analysis for the complete sample. SUBCULT and PARNTMAL had only indirect effects on maltreatment severity, 0.113 and 0.134 respectively. These two variables had larger direct and indirect effects on NPROBS, 0.204 and 0.218, but only trivial effects on PRI02MAL. CAREKNOW directly affected PRI02MAL, but had trivial effects on NPROBS and SEVERE. Interestingly, YRSEDUC had direct effects on CAREKNOW as well as on the three outcome variables. Its total effects on PRI02MAL, NPROBS and SEVERE were -0.145, -0.184, and -0.181 respectively.

Examination of the analysis results for the neglect subsample shows a different pattern of effects. Notably, SUBCULT had only trivial indirect effects on the three outcome variables. Additionally, the effect of education was substantially diminished as compared to the complete model,
with only a modest direct effect on CAREKNOW. PARNTMAL and CAREKNOW had modest effects on SEVERE, 0.157 and 0.172 respectively. CAREKNOW had direct effects on only PRIORMAL. It should be noted that the neglecting subsample, having the lowest subgroup mean for YRSEDUC, might have failed to reveal effects for years of education because of the nature of the distribution for that variable in the subsample.

Figure 9 shows the analysis results for the abusing subsample. The three paths that are present in the model are noteworthy, but what is more noteworthy is the fact that no variables were causally linked to either NPROBS or SEVERE. The principal reason for this is likely the small number of cases in the subsample, and the resulting large standard error for parameter estimates. In fact, the negative paths linking SUBCULT and YRSEDUC, and YRSEDUC and SEVERE were each larger than 0.235. However, since the standard error for both estimates was 0.126, these paths failed to attain statistical significance.

Nevertheless, the results are of interest if viewed descriptively rather than inferentially. The model shows that parents coming from a maltreating subcultural background have a greater likelihood of having been maltreated themselves as children. Having been maltreated as a child is in turn causally linked to a general deficiency in child
Figure 6: Initial Configuration for Learning Model
Figure 7: Results for Learning Model, Complete Sample
Figure 8: Results for Learning Model, Neglecting Subsample
Figure 9: Results for Learning Model, Abusing Subsample
Figure 10: Results for Learning Model Both Abusing and Neglecting Subsample
care knowledge. This deficiency is itself related to prior validated maltreatment. If one wished to interpret the path between years of education and severity of maltreatment, the model would show that less education is related to more severe child abuse.

The results for the subsample of both abusing and neglecting families are presented in Figure 10. The structure of effects is almost identical to that of the complete sample, with the main difference being that PARENTMAL did not have a direct effect on NPROBS, and PRIMAL did not have a direct effect on SEVERE. The effects of years of education were stronger than in the complete model, particularly on NPROBS and SEVERE. The total effect of YRSEDUC on these two variables was -0.396 and -0.372 respectively. Clearly, children of parents with less education are at greater risk of being confronted with problems in several areas and face more severe consequences as a result of those problems.

THE SOCIOLOGICAL MODEL

Figure 11 presents the initial configuration for the sociological model. Although other variables such as CROWDING and SUBCULT could have been included, the factors highlighted by Sweet and Resick (1979) dealt more with demographic characteristics of parents and poverty. Because the nine variables in this analysis exceeded the 10
to 1 ratio of cases to variables suggested by Cohen and Cohen (1983), the analysis of this model was not performed for the abusing subsample.

Examination of Figure 12 shows that SINPARNT and DISABLED dropped out of the model. Years of education had the strongest overall effect, negatively affecting all three outcome measures. The total effect on NPROBS and SEVERE was -0.208 and -0.265 respectively. Poverty positively affected SEVERE, indicating that increasing poverty tended to cause increased levels of maltreatment severity. SUBCULT and NONWHITE had modest effects. NONWHITE was linked to fewer problems in the family.

The results of the neglect subgroup analysis are presented in Figure 13. The model clearly was not supported by the data. Aside from the effects of SUBCULT and DISABLED on PRIORMAL, and SUBCULT on NPROBS, the variables either dropped out of the model or had trivial effects. The analysis for the both abusing and neglecting subsample yielded a similar lack of effect for most variables as can be seen in Figure 14. However, effects observed for YRSEDC and SUBCULT were not trivial. Their indirect effects on SEVERE were -0.230 and 0.129 respectively.
Figure 11: Initial Configuration for Sociological Model
**Figure 12: Results for Sociological Model, Complete Sample**

[Diagram showing relationships and statistical data between various factors in a sociological model.]
Figure 13: Results for Sociological Model, Neglecting Sub-sample
Figure 14: Results for Sociological Model Both Abusing and Neglecting Subsample
THE SOCIAL-PSYCHOLOGICAL MODEL

A social-psychological model of child maltreatment could include almost any conceivable hypothetical factor, and hence might prove difficult to subject to causal analysis. However, Sweet and Resick (1979) note that such a model would not only be compatible with environmental and individual variables but could also accommodate factors representing learning theory. Figure 15 presents the initial configuration of variables used to test the social-psychological model. The model includes all variables presented in Table 27, and although complex, it is not so overspecified as to be untestable.

Figure 16 presents the results of the analysis for the complete sample. Only four variables dropped out of the analysis: SINPARNT, KIDSICK, CROWDING, and SPACING. Particularly notable is that variables used in groups to represent the other theoretical configurations continue to have effects when all variables are analysed together. The variables from the learning theory configuration, PARNTMAL, YRSEDUC, and CAREKNOW in particular, have the greatest effect of any group.

The total effect of YRSEDUC on SEVERE, -0.182, exceeded that of any other variable including PSYCHFUN, which had a total effect of 0.137. The total effect of PARNTMAL, 0.125 was almost as large as that of PSYCHFUN. While often
Figure 15: Initial Configuration for Social-Psychological Model
Figure 16: Results for Social-Psychological Model Complete Sample
Figure 17: Results for Social-Psychological Model Neglecting Subsample
Figure 18: Results for Social-Psychological Model for Both Abusing and Neglecting Subsample
cast as the primary cause of maltreatment in literature, PSYCHFON itself was causally affected by several variables. Being physically disabled, socially isolated, and subject to higher levels of personal stress all tended to cause higher levels of psychological dysfunction. It is also worth noting that PSYCHFON had no direct effect on SEVERE.

The poverty hypothesis was validated in that PCTOFPOV demonstrated direct and indirect effects on SEVERE. Also of interest was the fact that, although a substance abuse problem tended to cause an increase in the number of problems present in a family, it did not directly affect the severity of maltreatment, having only an indirect effect through NPROBS.

Figure 17 presents the results for the neglect subsample. Substantively, the neglect results do not differ greatly from those of the complete sample. The biggest point of departure is that the effect of years of education and poverty disappeared except for weak indirect effects.

As mentioned in an earlier discussion connected with YRSEDUC, the fact that the neglecting subsample had the lowest mean of the three subsamples for both of these variables may indicate that the limited range of variation present in the subsample masks the true nature of the relationship. This would have the identical effect of correlating Student Aptitude Test (SAT) score with intelligence
quotient for individuals having a 135 I.Q. or greater: no or little relationship would be detected between intelligence and SAT scores.

Two other less dramatic differences concern PARNTMAL and DISABLED. PARNTMAL was shown to have a direct as well as an indirect effect on PSYCHFUN for a total effect of 0.219. This indicates that having been maltreated as a child, a parent will tend to experience poorer levels of psychological functioning. Also, DISABLED had a direct as well as an indirect effect on PRIORMAL.

Another noteworthy point, given the emphasis of Polansky and his associates on the psychological causation hypothesis with respect to child neglect, is that the total effect of PSYCHFUN on SEVERE, which was only indirect, was only 0.098.

The last figure, Figure 18, shows the results for the subsample that both abused and neglected. The structure of the model is much simpler than that of the complete sample, and to a degree, than the neglecting subsample. One explanation for so many paths failing to attain statistical significance relates to the number of variables in the model relative to the number of cases. The ratio of cases to variables is 9.3 to 1, which is less than the 10 to 1 suggested as a minimum by Cohen and Cohen (1983). Also, because of the sample size, the standard errors for the
estimates were relatively larger, and hence attaining statistical significance required larger effects.

Although there were fewer significant paths, the basic structure of the results was similar to that of the complete sample. The learning theory variables had the strongest effect on SEVERE as a group, with YRSEDUC having a greater effect, -0.194, than PSYCHFUN, 0.145. Also, STRESSZ had both direct and indirect effects on NPROBS and SEVERE, while in all other models it had only indirect effects mediated through PSYCHFUN. Also of interest is that ALCOHOL had no effects and that PRIORMAL only had indirect effects on SEVERE.

SUMMARY

These analyses demonstrate that no model, except in some subgroup analyses, was clearly refuted. What is particularly noteworthy is the fact that the psychological, learning, and sociological models are all subsets of the more complex social-psychological model, and that the more complex model was supported by the data. This would seem to indicate that maltreatment causation is best described as a broad, complex system of factors, and that using the more specialized models artificially truncates consideration of relevant factors.
Given the emphasis in literature on the psychological hypothesis, it is of significant interest that even in the simple model where psychological functioning was the only exogenous variable, it had no direct effect upon maltreatment severity. In fact, the social-psychological model demonstrated other factors that had greater total effects than psychological functioning.

Lastly, it is unfortunate that the limited number of cases available that were "abusing only" prohibited analysis with the sociological, and particularly the social-psychological, model. The structure of findings for the other two subgroups was somewhat identical, save for loss of significant variables due to fewer degrees of freedom. However, the results for the abusing subgroup for the two that were tested seemed to indicate that the abusing cases were displaying a different pattern of causality.
Chapter VII
DISCUSSION

This study attempted to address two general concerns. The first concern was whether or not the diverse views of child maltreatment and the factors which are deemed to be causally linked to its occurrence, as evidenced by the divergencies found in literature, provided an environment amenable to the creation and use of standardized assessment instruments. Attempts at such instrumentation were discussed in earlier chapters, with particular emphasis being given to the examination of Polansky's (1972) Childhood Level of Living Scale.

The process of initial case investigation was identified as the point at which a standardized assessment instrument would be of greatest practice value. The question asked in the study was whether or not the assessments of an investigator using a very general instrument could be corroborated by an ongoing caseworker who had access to greater information about a family due to a more extensive period of contact. To answer this question, paired ratings were gathered for 199 cases in six Ohio counties for new
reported cases of child maltreatment. The Kappa statistic was used to assess the degree of agreement between raters or, more precisely, the degree of interrater reliability.

The second concern addressed by this study was the validity of differing theoretical formulations of maltreatment causation. Four general theoretical models were identified and discussed in Sweet and Resick's (1979) review of the maltreatment literature. These provided the basis upon which study variables were used to construct general models for psychodynamic, sociological, learning, and social-psychological theories of maltreatment causation. Data were gathered in 21 Ohio counties for 472 new cases of child maltreatment. A wide range of variables discussed in literature was assessed by the caseworkers, who completed all study instruments. Path analysis, a special case of OLS regression, was used to test the linkages between variables in each of these models. Additionally, these models were analyzed for the three maltreating subgroups identified in the study: neglect, abuse, and both neglect and abuse.

**INTErrATER RELiability FINDINGS**

Assessments were made in 12 different areas of potential maltreatment, as well as an overall assessment. While the reliability for the assessment of abuse and neglect was
quite good, the reliability of assessments for specific conditions indicating maltreatment was extremely bad. Only about 10 percent of the conditions assessed had an interrater reliability which fell in the weak to good range. Of those items demonstrating some degree of reliability, the majority assessed the "likelihood of death" from conditions noted in the subsection—the most extreme consequence. The reliability of global assessments fared somewhat better, with three of the five items having values indicating weak to good reliability. Agreement was best for projected case outcome. There was also a moderate degree of agreement as to the need to remove a child from the home. However, none of the Kappa values was in the range of high reliability.

DISCUSSION OF INTERRATER RELIABILITY RESULTS

Clearly, the level of demonstrated disagreement justifies a severe questioning of any claims for the validity of standardized instruments designed to assess child maltreatment. The weak degree of interrater reliability revealed by this study's analysis was in connection with only very general items. This generality is particularly crucial in that existing instruments, particularly Polansky's, are intended to assess much more obscure home conditions and parental behavior. Thus, one could reasonably assume that interrater reliability for these instruments would be even more poor than what was observed by this study.
It is this researcher's opinion that the level of actual agreement among workers is greater than indicated by this analysis, as based upon the high Kappa for classifying abuse and neglect and the relatively greater level of agreement for the overall assessments. However, as a result of the various factors effecting the vagueness of definitions, as discussed in Chapters I and II, and the different ways in which individuals assign meaning to standardized categories, any attempt to classify cases based upon an assessment derived from a standardized instrument must be considered bad practice at this time.

Confronted with these findings, some individuals might choose to reject the conclusion, opting for a more "moderate" position. Such a moderate stance might involve the use of an indicators checklist. Such a checklist would likely be used as only one of several sources of information in a case investigation and analysis. However, a clear finding of this study was that items like those which would undoubtedly be used in a checklist were found to perform poorly with respect to reliability, and hence validity. Further, such instruments tend, over time, to be imbued with powers beyond their original design. Babbie (1979) discusses the process of conceptual entrapment, wherein instruments designed to assess phenomena not directly measurable, such as a maltreatment conditions
checklist, tend over time to become isomorphic representations of the phenomena. As a result, higher counts on a maltreatment conditions checklist would likely come to be viewed, ipso facto, as actually representing greater or more severe maltreatment.

Given the demonstrated unreliability, hence invalidity, and the conceptual dangers inherent in their application, the use of any standardized assessment instrument by protective services workers presents risks that far outweigh any potential benefits. The more traditional, detailed case narrative stands as an unquestionably superior assessment tool in comparison.

MODELS OF MALTREATMENT CAUSATION

Sweet and Resick (1979) conducted a literature review focused upon maltreatment causation which found that conceptions of maltreatment cause could be grouped into four general theoretical areas: psychodynamic, sociological, learning, and social-psychological theories. Using their theoretical categories this study cast a comparatively wide range of variables discussed in literature in four general causal models. These models were then tested using path analysis to determine which model would perform best.

The criteria for determining which model performed "best" was based in part upon the size of the residual
paths leading to the three outcome measures: number of problems present, prior confirmed maltreatment, and severity of maltreatment conditions. A second criteria was the proportion of variables cast in a model which had either direct or indirect effects upon the outcome variables.

One other factor was examined in this analysis. The sample of maltreating cases was divided into three subgroups based upon worker assessments of the degree of abuse and the degree of neglect present in a family: abusing families, neglecting families, and both abusing and neglecting families. Models were analyzed for each of these three subgroups as well as the overall sample. In this way it was hoped that some insight might be gained into the possibility of different models of causation for different types of maltreatment.

Of the three outcome measures, the severity of maltreatment was the variable of greatest interest. However, the reader must understand that since the only cases available to the study were from a maltreating population, the issue of causation is focused upon variation in the three outcome variables in this population and not upon the occurrence of maltreatment itself. Although an examination of causes which differentiated those who maltreat from those who do not would possibly be of greater value, this exploratory examination of cause in connection with maltreatment
severity provides possible insights into this larger question. The degree of insight which can be drawn in this regard depends upon an assumption that the factors which lead individuals to maltreat will also, as the "causes" become more intense, lead them to maltreat more severely.

**Psychodynamic Model**

The psychodynamic configuration that was tested causally linked the level of psychological functioning to all three outcome variables. For the overall sample and all but the abusing subgroup, the strongest effect of psychological functioning was on the number of problems present in the family, with no direct effect being found on severity of maltreatment. The abusing subgroup showed a strong direct effect on severity, but no effect on the other two variables. Also, prior maltreatment and the number of problems were not causally linked to severity for the abusing families as they had been for the other tested groups.

With the exception of the abusing subgroup, the model which cast maltreatment severity as a function of the psychological well-being of the parent received only equivocal support in that the only effects were indirect. This model, however, appeared to be supported by the abusing subgroup data.
Sociological Model

The sociological model examined the extent to which individual demographic characteristics were causally related to the three outcome variables. Subculture and years of education demonstrated effects in the overall and both subgroup analyses (a model was not analyzed for the abuse subgroup due to too few cases). In the overall analysis poverty demonstrated a direct effect upon severity of maltreatment, although the magnitude of the effect was not large. This finding is consistent with the position taken by Pelton (1978), that maltreatment is not a classless phenomenon. Also, as suggested by Wolock and Horowitz (1979), a physical disability of the parent was linked with prior maltreatment in the neglect subgroup.

Although linkages dropped out in the subgroup analyses as compared to the overall group, this model was not clearly refuted by the analysis.

Learning Model

The learning model cast sources of information about child care and child rearing as the causes of maltreatment severity. With the exception of the abusing subgroup, this model appeared to be supported to a greater extent by the data than the two preceding models. In the overall analysis, all potential "cause" variables had a direct effect upon at least one of the three outcome variables, in addi-
tion to indirect effects. This pattern was almost identical for the both abusing and neglecting subgroup. The neglecting subgroup differed primarily in that subculture and years of education produced only indirect effects, although the indirect effect of subculture through the variable assessing whether the parent had been maltreated as a child was notable.

It is noteworthy that this model was clearly not supported by the data for the abusing subgroup. Some statistical reasons for this were discussed in Chapter VI. However, even if some of the paths which barely failed to achieve statistical significance had done so, it is unclear whether the structure of the results would have been consistent with the other groups.

Social-Psychological Model

This was by far the most complex of the models, as it rightly should have been according to Sweet and Resick (1979). In fact, this model was comprised largely of the other models combined. To put it another way, the other models could be seen as subsets of the social-psychological model. Also included were two additional family attribute variables: one measuring the spacing between children, and the other the degree of crowding.

Four variables dropped out of the model. These were the variables indicating a single parent household, the
presence of a child with a serious or chronic illness, and the two family attribute variables identified in the prior paragraph. Apart from these dropouts, the model performed well. The structure of the results was somewhat similar for the three groups analyzed. Due to the fewer number of cases in the both abusing and neglecting subgroup, that model had more paths failing statistical significance. However, the structure of the remaining paths was similar to the other two groups.

The fact that none of the other three models was clearly refuted by analysis becomes interesting in that the same variables function in much the same manner in this larger model. As a group the learning variables demonstrated the greatest influence. Also, poverty again had a direct effect on severity for the complete sample.

As indicated in the analysis of the psychodynamic model, the level of psychological functioning had only indirect effects upon severity. Further, the level of psychological functioning proved to be "caused" by social isolation as suggested by Giovannoni and Billingsley (1970), life stress as suggested by Pelton (1981) and parent's physical disability as suggested by Wolock and Horowitz (1979).
SYNTHESIS

In that the less complex models function as well within the context of most complex, the social-psychological model, as they did when examined separately, the most reasonable model to favor would be the most complex. This offers a picture of maltreatment causation that is like that discussed by Gelles (1975) in particular, and somewhat consistent with Gil's (1971) views also. The view of Gelles is that no cause is either sufficient or necessary, but rather that the structure of cause can be very complex and variable across families. This offers a perspective on maltreatment which is somewhat at variance with the standing consensus identified by Sweet and Resick, that the psychological variable is the most influential. Clearly, this was not the case for the 472 study families.

Although the analysis of the psychodynamic model suggested that the psychological variable caused variations in maltreatment severity for the abusing subgroup, this finding needs to be regarded with caution. This finding on one hand does suggest that the structure of cause for abuse-only families may be different from other maltreating families. However, since the relatively few cases of abuse-only cases prohibited meaningful analysis of the other models, particularly the social-psychological model, it remains unclear how the psychological variable would func-
tion in the presence of the other potential causal factors. There is no reason to assume, for example, that the psychological variable for the abusing subgroup would not also prove itself to be a function of other stress factors as it was shown to be for the other groups.

The failure of the psychological variable to demonstrate large effects should not be surprising. Studies which report such effects, such as those of Polansky and Milner, tend to use this variable as the focus of the investigation. However, in studies like the one performed by Gaines and his associates (1978), where numerous other factors were examined, the psychological hypothesis has not been strongly supported.

Material Level of Living

Wolock and Morowitz (1979) and Pelton (1978) argue that poverty is instrumental in the occurrence of child maltreatment. Study data tend to support this assertion. The effects of poverty for the complete sample were directly on severity and life stress. These effects were, however, not strong.

This study examined only identified maltreaters, and the average household for this group had a post-transfer income which was below poverty level. Therefore, it would be reasonable to assume that in the presence of a nonmaltreating comparison group and a sample wherein income more
closely mirrored the total population, the poverty effect would be greater.

**Stress Variables**

Six variables which various authors have addressed as potential sources of psychological stress were analyzed. These variables were (1) a general life stress scale (see Chapter III); (2) a social isolation index; (3) a measure of the degree of crowding in the family; (4) an index of spacing between children; (5) a dummy variable indicating a severely or chronically ill child; and (6) a dummy variable indicating a moderate to severe physical disability for the parent. Of these six variables, crowding, spacing and the presence of a sick child were not supported as causes in any model. A parental disability and social isolation were found to be causally linked to the level of psychological functioning, as was life stress. Life stress was also linked with the presence of a substance abuse problem, which itself was linked with the number of problems present in the family.

The fact that other studies have found such variables as the degree of crowding to be important, and this study did not, could again be an artifact of study design. Since this study did not look at nonmaltreaters, it is quite possible that their inclusion would have created an effect. However, it is equally possible that the peculiar nature of
the "control" groups used in other studies could have created the effects which were found.

**Learning Variables**

The learning variables as a group displayed the widest range of effects, both direct and indirect, on the three outcome variables. Although Wolock and Horowitz (1979) report that parental education did not appear to be a factor in maltreatment, this study's finding clearly indicate the contrary, with the level of education having direct as well as indirect effects upon all three outcome variables. The difference could have come from Wolock and Horowitz's using a less precise measure of education, such as a dummy indicating high school graduation, than was used in this study, or again, the difference could be due to the sample.

Findings consistent with literature were that the parent having been maltreated as a child and a general deficiency in child care knowledge demonstrated effects. Interestingly, these variables did not have direct effects upon severity, but rather on the occurrence of prior maltreatment and the number of problems. The effects of subculture were indirect, affecting the other learning variables. A parent having been maltreated as a child also affected whether a parent was generally deficient in child care knowledge.
In general, the learning variables seem to create conditions favorable to maltreatment. In other words, parents learn by way of their subculture, the way their parents behaved as parents and through their own education (or more precisely the lack of it), a way of living and behaving which bring about conditions problematic for children's welfare.

Substance Abuse

Alcohol and drug use has been widely discussed as affecting child maltreatment. The dummy variable included in analyses which indicated a drinking or drug problem did not have direct effects upon either severity or prior maltreatment. It would appear that the contribution of this factor to child maltreatment is by means of increasing the number of problems present in a family, and not by causing parents to do bizarre things to their children. Although drinking behavior is not often measured in other studies, Wolock and Horowitz (1979) gathered such information. They found that maltreaters and nonmaltreaters displayed roughly equivalent patterns of drinking. These findings would seem to be consistent with this study's finding of no direct effect of substance abuse upon maltreatment severity.
IMPLICATIONS

Challenge to Traditional Conceptions

Sweet and Resick (1979) have identified the psychological hypothesis as the predominant perspective for maltreatment causation. The findings of this study call this perspective very much into question. No direct effects were observed upon maltreatment severity from the psychological functioning variable. Its predominate effect appeared to be to increase the number of problems present in a family. This is an effect similar to that of parent's education and a parent being generally deficient in child care knowledge. Further, the level of psychological functioning appeared to be a function of the level of life stress, the degree of social isolation and whether or not the parent was physically disabled. Therefore, to focus upon the psychological variable represents an emphasis which is both narrow and misplaced. Alternatively, the findings of this study indicate that poverty, stress, and learning are equal or more important factors.

Implications for Practice

The structure of findings indicates that child maltreatment severity is not a simple function of psychologically ill parents. On the contrary, the pattern of effects is widespread across factors, and likely highly variable
with respect to those factors across families. This has implications for the counseling approach taken by workers. Clearly, the pattern of effects demonstrated for the learning variables would tend to suggest that the focus of intervention should be more in the form of education about appropriate child care and family management skills.

Given the influence of values upon the indefinite issues of child care discussed in Chapters I and II, the effects of subculture noted should not be dismissed lightly. These findings suggest that subcultural influences cause, ultimately, conditions identified as relating to maltreatment. The question which must be asked is whether or not these conditions actually are related to maltreatment, or whether they are in fact only identified as such because they differ with the prescriptions of the majority culture. Ethically, it would be inconsistent to judge a parent as maltreating because of child rearing practices which differ from normative practice, but which have not been objectively determined as harmful.

Implications for Policy

The most significant policy implication relates to the widespread pattern of effects noted in the findings. These findings suggest that more simple models of maltreatment causation are inadequate. Therefore, remedial policy and policy targeting prevention should be approached with great
caution. Policy actions should only tenuously embrace a particular model of maltreatment cause. Further, any policy initiatives should include money supporting comprehensive research efforts designed to examine a wide range of factors with rigorous controls. Based upon the results of this study, child maltreatment causation will not be meaningfully addressed by smaller, more narrowly focused studies. Therefore, before policy, particularly at the national level, can meaningfully address this problem, more will have to become known.

Implications for Research

Consistent with statements above, the scope of child welfare research must be expanded. The types of variables which likely need to be included, and the measurement problems inherent to the use of variables, such as the extent of maltreatment experience by maltreating parents when they were a child, indicate that superficial investigations will be inadequate for providing necessary information. The types of studies needed will be costly both in actual dollars and staff time for participating agencies.

Child maltreatment has emerged in the last two decades as a social problem commanding considerable public attention. The demands for action, both remedial and preventative are great. However, the information available to inform both practice and policy is very limited because of
the nature and scope of the majority of research investigations. Even more comprehensive studies such as this one suffer from limitations which make definitive conclusions elusive. To answer the questions which must be answered if policy and practice are not to be misguided will require money, research rigor and, most important, the cooperation of the practice community. Inadequacies in any of these areas will be critical.

A special admonishment is directed to child welfare agencies and their workers. While the burden of work in public child welfare agencies is often overwhelming, an attitude which argues that the demands of one's work are such that allowing time for investigations is not possible is not justifiable. The agencies and workers are the best sources for the types of data needed so that maltreatment may ultimately be better understood. Those not willing to cooperate with efforts to study the problem do not even help themselves by avoiding the sacrifice of time and effort, for there is no assurance that the assumptions used to guide their interventions are valid.

An even more pointed admonishment is directed to any researcher wishing to investigate child maltreatment. Requirements for the type and nature of research needs were mentioned earlier and need not be repeated. However, beyond those points, researchers must be vitally aware that
any impositions made upon child welfare workers, from whom
the best data will almost certainly have to come, represent
most likely an additional burden to an already overburdened
professional. This reality demands that the nature of
imposition be minimized, and that the workers should be
full partners in the study. The fullest cooperation will
be necessary if the state of knowledge concerning child
maltreatment is to be improved.
BIBLIOGRAPHY


- 202 -


Coombes, P., M. McCormack, M.H. Chipley, B. Archer and J. Norman Manual for Using Abuse and Neglect Indicators and


Appendix A

CHILDHOOD LEVEL OF LIVING SCALE
Items and Scoring

Part A - Physical Care

Key to Scoring

Yes  No

I. General Positive Child Care

1. Mother plans at least one meal consisting of two courses. 1

2. Mother uses good judgment about leaving child alone in the house. 1

3. Mother plans for variety in foods. 1

4. Mother sometimes leaves child to insufficiently older sibling 1

5. Mother plans meals with courses that go together 1

6. The child receives at least 9 hours of sleep most nights. 1

7. Child is offered food at fixed time each day 1

8. Bedtime for the child is set by the parents for about the same time each night 1

9. Mother has evidenced lack of awareness of child's possible dental needs. 1

10. Mother expresses concern about feeding child balanced diet. 1

11. Mother enforces rules about going into the street. 1

12. Child has been taught own address. 1
13. Child is taught to swim or mother believes child should be taught to swim.  
14. Mother will never leave child alone in the house.  
15. Mother uses thermometer with child.  

II. State of Repair of House. 
16. Storm sashes or equivalent are present  
17. Windows are caulked or sealed against drafts.  
18. Doors are weatherproofed.  
19. House is dilapidated.  
20. There are window screens in good repair in most windows.  
21. Wood floors are cracked and splintered.  
22. There are screen doors properly mounted.  
23. There is an operating electric sweeper.  
24. Floor covering presents tripping hazard.  
25. Living room doubles as a bedroom.  

III. Negligence (Reciprocal Meaning).  
26. There are food scraps on the floor and furniture.
Key to Scoring

Yes  No

27. Child 5 years or older sleeps in room with parents.  1
28. At least one of the children sleeps in the same bed as parents.  1
29. Mother plans special meals for special occasions.  1
30. Windows have been cracked or broken over a month without repair.  1
31. Clothing usually appears to be hand-me-downs  1
32. Buttons and snaps of child's clothing are frequently missing and not replaced  1

IV. Quality of Household Maintenance.

33. There are dirty dishes and utensils in rooms other than the kitchen.  1
34. There are leaky faucets.  1
35. The roof (or ceiling) leaks.  1
36. The floors of the house appear to be swept each day.  1
37. Bathroom seems to be cleaned regularly.  1
38. Mother takes precautions in the storage of medicine.  1
39. Mattresses are in obviously poor condition.  1
40. Repairs one usually makes oneself are left undone.  1
Key to Scoring
Yes No

V. Quality of Health Care and Grooming.

41. Mother has encouraged child to wash hands before meals.

42. Ears are usually clean.

43. Mother mentions she makes effort to get child to eat foods not preferred because they are important to child's nutrition.

44. Poisonous or dangerous sprays and cleaning fluids are stored out of child's reach.

45. Mother has encouraged child to wash hands after using toilet.

46. Mother cautions child to be careful of flaking paint.

47. It is obvious that mother has given attention to child's grooming at home.

Part B - Emotional/Cognitive Care

VI. Encouraging Competence.

48. Planned overnight vacation trip has been taken by family.

49. Child has been taken by parents to see some well known historical or cultural building.

50. Child has been taken by parents to see a spectator sport.

51. Mother mentions that in the last year she has: taught the child something about nature; told the child a story; read a story to the child.
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<td>52.</td>
<td>Family has taken child downtown.</td>
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<tr>
<td>53.</td>
<td>Child has been taken by parents to see various animals.</td>
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<td>54.</td>
<td>Child has been taken by parents to a carnival.</td>
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<td>55.</td>
<td>Mother is tuned into child's indirect emotional signals.</td>
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<td>56.</td>
<td>Mother mentions that she has played games with the child.</td>
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<td>57.</td>
<td>Mother mentions use of TV to teach child.</td>
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<td>58.</td>
<td>Child has been taken by parents to a parade.</td>
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<td>59.</td>
<td>A prayer is said before some meals.</td>
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<td>1</td>
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<td>60.</td>
<td>Mother comforts the child when he is upset.</td>
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<td>61.</td>
<td>There are magazines available.</td>
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</tr>
<tr>
<td>62.</td>
<td>The family owns a camera.</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>63.</td>
<td>The child says prayers at bedtime.</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>64.</td>
<td>Child has been taken to children's movie.</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>65.</td>
<td>Mother mentions that she answers child's questions about how things work.</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>66.</td>
<td>Child has been taken by parents to the firehouse.</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>67.</td>
<td>Child has been taken fishing.</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

VII. Inconsistency of Discipline and Coldness (Reciprocal Meaning).

68. Mother seems not to follow through on rewards. 1
69. Mother mentions that she cannot get child to mind. 1
70. Child is often ignored when he tries to tell mother something. 1
71. The child is often pushed aside when he shows need for love. 1
72. Mother seems not to follow through on threatened punishments. 1
73. Spanking is sometimes with an object. 1
74. Mother threatens punishment by imagined or real fright object. 1
75. Very frequently no action is taken when discipline is indicated. 1
76. Mother frequently screams at child. 1
77. Mother is made uncomfortable by child's demonstration of affection. 1
78. Mother complains a lot about life. 1
79. Mother mandates child's play according to sex (i.e. girls may play only with dolls) 1
80. Child is never allowed to make a mess. 1
81. Dolls are available to the child for play. 1

VII. Encouraging Superego Development.
82. Mother expresses to the child her concern for child's safety if there is a real danger. 1
83. There is a designated area for play. 1
84. Parents guard language in front of children. 1
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>85.</td>
<td>Child is immediately spanked for running into the street.</td>
</tr>
<tr>
<td>86.</td>
<td>Mother mentions child asks questions showing curiosity about how things work.</td>
</tr>
<tr>
<td>87.</td>
<td>Child is taught to be respectful of adults.</td>
</tr>
<tr>
<td>88.</td>
<td>Mother puts child to bed.</td>
</tr>
<tr>
<td>89.</td>
<td>Mother mentions that she limits child's TV watching.</td>
</tr>
<tr>
<td>90.</td>
<td>Child is encouraged to care for own toys.</td>
</tr>
<tr>
<td>91.</td>
<td>Child is taught to respect property of others.</td>
</tr>
<tr>
<td>92.</td>
<td>Mother expresses pride in daughter's femininity or son's masculinity.</td>
</tr>
<tr>
<td>93.</td>
<td>Mother is able to show physical affection to child comfortably.</td>
</tr>
<tr>
<td>94.</td>
<td>There are books for adults in the house.</td>
</tr>
<tr>
<td>95.</td>
<td>An effort is made to provide choices for the child.</td>
</tr>
</tbody>
</table>

**IX. Material Giving.**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>96.</td>
<td>Crayons are made available to the child.</td>
</tr>
<tr>
<td>97.</td>
<td>A play shovel is available to the child.</td>
</tr>
<tr>
<td>98.</td>
<td>Child is sometimes rewarded for good behavior with a treat.</td>
</tr>
<tr>
<td>99.</td>
<td>The child has a book of his own.</td>
</tr>
</tbody>
</table>
Appendix B

PROSPECTUS AND LETTER OF INTRODUCTION
November 19, 1982

Mr. Harold Clark  
Executive Secretary  
Fairfield County Children Services  
Court House - 4th Floor  
Lancaster, OH 43130

Dear Mr. Clark:

Enclosed is a brief description of a study proposed by Robert Foulk, a doctoral student at The Ohio State University College of Social Work. He proposes to examine several topics having to do with child neglect. This type of maltreatment has not received nearly the research attention that has been afforded child abuse, even though neglect cases significantly outnumber abuse cases.

As of November 15, Mr. Foulk had commenced data collection in two of Ohio's largest metropolitan counties and four medium sized counties. His plans involve soliciting the participation of two more medium sized counties and ten of Ohio's smallest counties. The total sample of cases from all of the sixteen to eighteen counties will be 600.

In order to answer the questions he has proposed for this study, Mr. Foulk must enlist the assistance and cooperation of children's services child protective staff. He needs to have workers who investigate reported cases of maltreatment complete two data collection forms: one at the initial investigation and another when a more complete family summary is developed. Both of these instruments will summarize the information which would typically be obtained by workers conducting an investigation in a structured format, and should not represent an extensive time demand for workers.

I have suggested to Mr. Foulk that he attempt to solicit your agency's participation in his study. This would involve the collection of information on up to 25 cases. He will be contacting you by telephone within the next week to ten days to answer any questions you may have regarding the research. If you would be agreeable to discussing this project further, you might consider a time at which he could meet with you or a person designated by you.

Very sincerely,

Nolan Rindfleisch, Ph.D.  
Associate Professor

NR/cg

Enclosure
Introduction

Child neglect is the "step-child" in the field of child maltreatment, even though the ratio of occurrence for child neglect compared to abuse is approximately 5 to 1. Feeling that attention is much in need for the step-child, this study proposes to address three research issues concerning child neglect. It is the aim of this study to expand the knowledge base for the problem of child neglect in a manner which has both theoretical and practical relevance.

Three specific products are to result from this research:
1. A rapid assessment instrument to determine the degree of risk of child neglect in a family;
2. A causal model for child neglect which will highlight not only causal factors, but also their relative causal contribution; and
3. A service-delivery-relevant classification system for neglecting families.

Research Objectives

1. Construction of an instrument for assessing the degree of neglect risk in a family based on a list of literature-defined indicators of child neglect.
2. Collection of data from child protection investigators using the risk assessment instrument.
3. Develop an instrument which will be used by child welfare workers to gather data during their comprehensive investigations which follow a finding of abuse or neglect.
4. Collection of detailed family data for all families identified as maltreating.
5. Item and criterion-related analysis of neglect-risk assessment instrument.
6. Analysis of detailed family data for verification and/or revision of causal model for child neglect.
7. Analysis of cases for the purpose of constructing intervention-relevant classification of neglecting families.

**Data Collection**

Two data collection phases will be necessary to achieve these objectives:

1. Use by child welfare investigators of an instrument which will provide the basic data for construction of the rapid assessment instrument.
2. Use by child welfare workers of a structured instrument for recording data which they would collect as part of their investigation for the compilation of comprehensive social service summary for a family.

**Sampling**

Since this study requires that data be gathered during the course of actual protective investigations and agency follow-up investigations for cases determined to be maltreating, the study will use all cases which come to the agency's attention during a one to two month data collection period. No sample will be drawn in the conventional sense of sampling. The cases used will be considered a population of cases for the time period of the data collection, and will be examined for demographic similarity to prior agency cases to determine whether they can be justifiably considered a sample of all cases which have come to the agency's attention.

The time period is indefinite because it is not possible to precisely
determine how many cases of maltreatment will be reported to the agency during any time period. In addition, it will not be necessary for the researcher to access agency files himself, or to contact agency clients in any way.

Potential Benefits to Agency

The first and third phases of the research will generate products which have direct relevance to service delivery in child welfare. A rapid assessment instrument for determination of the degree of risk of neglect would help standardize the process of making neglect determinations. As a rule, making a decision with the assistance of an empirical aid is less problematic than doing so without such assistance (presuming the aid is a valid measure). Additionally, if meaningful typologies for neglecting families can be derived, such typologies could provide the basis for a triage of cases at intake which would result in immediate intervention based upon the service delivery model(s) deemed likely to be effective, given the family's classification.
Appendix C

STUDY INSTRUMENT FOR MALTREATMENT CASES
MALTREATMENT STUDY - INSTRUMENT I

I. Information from Ohio Central Registry Report

**Note:** All information on this page and page 2 is to be transferred directly from the Child Abuse/Neglect Report for the Ohio Registry.

<table>
<thead>
<tr>
<th>Caretaker(s) Name (first only)</th>
<th>Age</th>
<th>Role</th>
<th>Sex</th>
<th>Eth.</th>
<th>Coders Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<tr>
<td>2.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Perpetrator</th>
<th>Age</th>
<th>R.C.</th>
<th>Sex</th>
<th>Eth.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alleged Victim(s)</th>
<th>R.C.</th>
<th>Age 1</th>
<th>Age 2</th>
<th>Sex</th>
<th>Eth.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td></td>
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<tr>
<td>C.</td>
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<tr>
<td>D.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.</td>
<td></td>
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</tr>
</tbody>
</table>

Total number of minor children in home: _____

<table>
<thead>
<tr>
<th>Caretaker Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Name of Person Completing Form: __________________________

Nature of Complaint: ________________________________

Referral Source (record only circled letter): ______

Determination of Case Status (circle appropriate letters):

A - Abuse Substantiated  E - Neglect Substantiated
B - Abuse Unsubstantiated F - Neglect Unsubstantiated
C - Abuse Unsubstantiated - Cannot Locate G - Neglect Unsubstantiated - Cannot Locate
D - Abuse Indicated H - Neglect Indicated
I - Dependency

***Note:** Complete page two for all families.
### NOTE: This page is to be filled out for all families.

<table>
<thead>
<tr>
<th>Type of Malinvestment (Circle all that apply for each child)</th>
<th>Employment Status (Circle one letter for each caretaker)</th>
<th>Public Assistance Status</th>
<th>Family Stress Factors (Circle all that apply)</th>
<th>Services Provided (Circle all that apply)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A B C D E F Brain Damage/Skull Fracture</td>
<td>CARETAKER 1</td>
<td>A - Receiving P. A.</td>
<td>J - Spouse Abuse</td>
<td>A - Services Expected/Planned - Not Provided Yet</td>
</tr>
<tr>
<td>A B C D E F Subdural Hematoma/Hemorrhage</td>
<td>A - Employed Full-time</td>
<td>B - Not Receiving P. A.</td>
<td>K - Inability to Cope with Parenting</td>
<td>B - Emergency Shelter Care</td>
</tr>
<tr>
<td>A B C D E F Bone Fracture</td>
<td>B - Employed Part-time</td>
<td></td>
<td>L - Disruption of Family Structure</td>
<td>C - Immediate Medical</td>
</tr>
<tr>
<td>A B C D E F Dislocation/Scrapes</td>
<td>C - Unemployed</td>
<td></td>
<td>M - New Baby/Pregnancy</td>
<td>D - Casework Counseling</td>
</tr>
<tr>
<td>A B C D E F Internal Injuries</td>
<td>D - Not in the Labor Force</td>
<td></td>
<td>E - Criminal Action Taken</td>
<td>F - Family/Juvenile Court Action Taken</td>
</tr>
<tr>
<td>A B C D E F Poisoning</td>
<td></td>
<td></td>
<td>G - Foster Care</td>
<td></td>
</tr>
<tr>
<td>A B C D E F Burns/Scalds</td>
<td></td>
<td></td>
<td>H - Institutional Care</td>
<td></td>
</tr>
<tr>
<td>A B C D E F Severe Lacerations/Swashes/Welts</td>
<td></td>
<td></td>
<td>I - Day Care</td>
<td></td>
</tr>
<tr>
<td>A B C D E F Minor Cuts/Bruises</td>
<td></td>
<td></td>
<td>J - Homemaker/Home Health Aide/Case Management</td>
<td></td>
</tr>
<tr>
<td>A B C D E F Twisting/Shaking</td>
<td></td>
<td></td>
<td>K - Mental Health Counseling</td>
<td></td>
</tr>
<tr>
<td>A B C D E F Hair Pulling</td>
<td></td>
<td></td>
<td>L - Other (Specify)</td>
<td></td>
</tr>
<tr>
<td>A B C D E F Other Physical Injury (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Incest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Exploitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Rape</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Other Sexual Malinvestment (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Inadequate Nourishment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Inadequate Shelter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Inadequate Clothing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Inadequate Health Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Inadequate Supervision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Educational Neglect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Failure to Thrive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Emotional Malinvestment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Abandonment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Tying/Clothes Confinement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A B C D E F Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Fatality

<table>
<thead>
<tr>
<th>A B C D E F Fatal</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A B C D E F Nonfatal</th>
</tr>
</thead>
</table>

**Coders Only**

```
<table>
<thead>
<tr>
<th>Coders Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>t1 t2 e1 e2 pa a b c d e f g h i j k l m n</td>
</tr>
<tr>
<td>-------------</td>
</tr>
</tbody>
</table>
```
II. Assessment Checklist

**IMPORTANT**

1. Circle all responses except for item number ten under each category of conditions.

2. When it is necessary to complete item ten for any condition category, be sure that the five percent estimates entered total 100.

3. When evaluating item one through four for each category of conditions, consider the categories as having the following meaning.
   a. not a condition - Investigator is reasonably sure the condition is not present;
   b. possibly a condition - Investigator has grounds for suspecting that a condition is present, but documentary evidence is weak;
   c. likely a condition - Investigator has evidence which conclusively or very strongly documents the presence of the condition; or,
   d. cannot determine - evidence for either confirming the condition or refuting the presence of the condition is not apparent or available.

4. Although all items are written in singular form, they are meant to apply to situations where more than one child or caregiver is involved.

5. For items five through nine, either the "1" or the "7" should be circled if the conditions observed are best described by one of the two "states" listed at each end of the numbered continuum. The numbers between the two extremes indicate a range of intensity of either seriousness, frequency of occurrence or likelihood of a consequence, with "4" representing the midpoint on the continuum.

6. Boxed text contains instructions; please read carefully.

7. Make your responses reflect your best professional judgments.

---

**KEY DEFINITIONS**

Conditions - states or circumstances effecting or possibly effecting the well-being of a child.

Flawed Adult - an individual who is physically, emotionally and/or intellectually impaired in terms of his/her ability to cope with adult life and responsibilities.

Personal Deficiency - factors such as physical handicaps, intellectual limitations, immaturity or psychological illness, etc.

Resource Deficiency - factors such as a lack of transportation, a lack of support from family and friends or a lack of money, etc. Does not refer to public resources.
A. Intentional Physical Injury Conditions: What is the likelihood that the following conditions are present?

1. Child has been struck as punishment.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

2. Child has been struck with hands or has been kicked by caregiver.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

3. Child has been struck with an object by caregiver.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

4. Other Intentional Physical Injury conditions. (list if suspected or present)_____________________
   a. no other conditions
   b. possibly a condition
   c. likely a condition
   d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO PHYSICAL INJURY ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care *
    b. personal deficiency of caregiver (list)____________________ *
    c. resource deficiency (list) ________________ *
    d. subcultural and/or life-style values and practices *
    e. other (list) ________________ *

    Total = 100
B. Sexual Maltreatment Conditions: What is the likelihood that the following conditions are present?

1. Child has had sexual relations with parent or guardian.
   - a. not a condition
   - b. possibly a condition
   - c. likely a condition
   - d. cannot determine

2. Child has had sexual relations with other relative or friend of parent or guardian.
   - a. not a condition
   - b. possibly a condition
   - c. likely a condition
   - d. cannot determine

3. Child has had sexual relations with a sibling.
   - a. not a condition
   - b. possibly a condition
   - c. likely a condition
   - d. cannot determine

4. Other sexual maltreatment conditions. (list if suspected or present)
   - a. no other conditions
   - b. possibly a condition
   - c. likely a condition
   - d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO SEXUAL MALTREATMENT ONLY. IF "b" OR "c" WAS NOT CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   - No problem
   - Occurred once
   - Occurs constantly

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   - Occurred once
   - Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   - Not likely
   - Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   - Not likely
   - Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   - Not likely
   - Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (your five estimates must total 100)
    - a. knowledge deficiency regarding appropriate child care
    - b. personal deficiency of caregiver (list)
    - c. resource deficiency (list)
    - d. subcultural and/or life-style values and practices
    - e. other (list)

    Total = 100
C. Supervision Conditions: What is the likelihood that the following conditions are present?

1. Child left to be cared for by others without specific arrangements having been made by caregiver.
   a. not a condition         c. likely a condition
   b. possibly a condition    d. cannot determine

2. Child left in care of another child too young or otherwise not able to be a responsible caregiver.
   a. not a condition         c. likely a condition
   b. possibly a condition    d. cannot determine

3. Child left for long periods of time either unattended or inadequately supervised.
   a. not a condition         c. likely a condition
   b. possibly a condition    d. cannot determine

4. Other supervisory conditions. (list if suspected or present) _________________________________
   a. no other conditions     c. likely a condition
   b. possibly a condition    d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO SUPERVISORY CONDITIONS ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care =
    b. personal deficiency of caregiver (list) =
    c. resource deficiency (list) =
    d. subcultural and/or life-style values and practices =
    e. other (list) =
    Total = 100
D. Moral Development Conditions: What is the likelihood that the following conditions are present?

1. Caregiver aware of inappropriate and/or delinquent behavior and is neither supportive nor discouraging of such behavior.
   a. not a condition  c. likely a condition  b. possibly a condition  d. cannot determine

2. Caregiver is promiscuous and does not hide behavior from child.
   a. not a condition  c. likely a condition  b. possibly a condition  d. cannot determine

3. Caregiver encourages inappropriate or delinquent behavior.
   a. not a condition  c. likely a condition  b. possibly a condition  d. cannot determine

4. Other moral development conditions. (list)  ____________________________
   a. no other conditions  c. likely a condition  b. possibly a condition  d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO MORAL DEVELOPMENT ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem  1  2  3  4  5  6  7  Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once  1  2  3  4  5  6  7  Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely  1  2  3  4  5  6  7  Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely  1  2  3  4  5  6  7  Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely  1  2  3  4  5  6  7  Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (Your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care = _________
    b. personal deficiency of caregiver (list) __________ = _________
    c. resource deficiency (list) __________ = _________
    d. subcultural and/or life-style values and practices = _________
    e. other (list) __________ = _________
    Total = 100
E. Medical/Dental Conditions: What is the likelihood that the following conditions are present?

1. Child is clearly ill or injured, or has other medical problems but has not received medical attention.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

2. Child has not been adequately vaccinated against severe diseases such as polio.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

3. Child has obvious dental cavities or other noticeable dental problem.
   a. no other conditions
   b. possibly a condition
   c. likely a condition
   d. cannot determine

4. Other medical/dental conditions. (List if suspected or present)
   a. no other conditions
   b. possibly a condition
   c. likely a condition
   d. cannot determine

---

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO MEDICAL/DENTAL CONDITIONS ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   a. not a problem
   b. no problem
   c. possibly a problem
   d. likely a problem
   e. extremely likely

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   a. not likely
   b. not likely
   c. likely
   d. extremely likely
   e. occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   a. not likely
   b. likely
   c. extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   a. not likely
   b. likely
   c. extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   a. not likely
   b. likely
   c. extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (Your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care
    b. personal deficiency of caregiver (list)
    c. resource deficiency (list)
    d. subcultural and/or life-style values and practices
    e. other (list)

    Total = 100
F. Nutritional Conditions: What is the likelihood that the following conditions are present?

1. Child does not get regular meals.
   a. not a condition  
   b. possibly a condition  
   c. likely a condition
   d. cannot determine

2. Food available in the home is inadequate in quantity and/or nutritional quality.
   a. not a condition  
   b. possibly a condition
   c. likely a condition
   d. cannot determine

3. Child appears malnourished and/or excessively underdeveloped for age.
   a. not a condition  
   b. possibly a condition
   c. likely a condition
   d. cannot determine

4. Other nutritional conditions. (list if suspected or present)
   a. no other conditions  
   b. possibly a condition
   c. likely a condition
   d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO NUTRITIONAL CONDITIONS ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child’s death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of “cause” for the observed or suspected conditions could be attributed to each of the five categories of “cause” listed below? (your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care
    b. personal deficiency of caregiver (list)
    c. resource deficiency (list)
    d. subcultural and/or life-style values and practices
    e. other (list)

Total = 100
G. Emotional Maltreatment Conditions: What is the likelihood that the following conditions are present?

1. Child is rejected due to caregiver indifference or by being overtly ignored by caregiver.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

2. Child is told that she/he is worthless and/or unwanted.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

3. Child locked in a room or otherwise isolated for extended periods of time.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

4. Other emotional maltreatment conditions. (list if suspected or present)
   a. no other conditions
   b. possibly a condition
   c. likely a condition
   d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO EMOTIONAL MALTREATMENT ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care  
    b. personal deficiency of caregiver (list) 
    c. resource deficiency (list) 
    d. subcultural and/or life-style values and practices 
    e. other (list)  
    Total = 100
H. Drug/Alcohol Conditions: What is the likelihood that the following conditions are present?

1. Drugs and/or alcohol are in evidence in the home.
   a. not a condition  
   b. possibly a condition  
   c. likely a condition  
   d. cannot determine  
   [ ]

2. Child has used drugs/alcohol in the home with the consent of the parents.
   a. not a condition  
   b. possibly a condition  
   c. likely a condition  
   d. cannot determine  
   [ ]

3. Parent is alcoholic and/or drug addict.
   a. not a condition  
   b. possibly a condition  
   c. likely a condition  
   d. cannot determine  
   [ ]

4. Other drug/alcohol conditions. (list if suspected or present) __________________________________________
   a. no other conditions  
   b. possibly a condition  
   c. likely a condition  
   d. cannot determine  
   [ ]

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7  Extreme problem  
   [ ]

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7  Occurs constantly  
   [ ]

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7  Extremely likely  
   [ ]

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7  Extremely likely  
   [ ]

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7  Extremely likely  
   [ ]

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (Your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care  
    b. personal deficiency of caregiver (list)  
    c. resource deficiency (list)  
    d. subcultural and/or life-style values and practices  
    e. other (list)  
    [ ]

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO DRUG/ALCOHOL CONDITIONS ONLY. IF "B" OR "C" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7  Extreme problem  
   [ ]

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7  Occurs constantly  
   [ ]

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7  Extremely likely  
   [ ]

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7  Extremely likely  
   [ ]

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7  Extremely likely  
   [ ]

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (Your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care  
    b. personal deficiency of caregiver (list)  
    c. resource deficiency (list)  
    d. subcultural and/or life-style values and practices  
    e. other (list)  
    [ ]

Total = 100
1. Cleanliness Conditions: What is the likelihood that the following conditions are present?

1. Child has not been recently or adequately bathed.
   a. not a condition   c. likely a condition
   b. possibly a condition   d. cannot determine

2. Child has filthy or matted hair.
   a. not a condition   c. likely a condition
   b. possibly a condition   d. cannot determine

3. Child's teeth are not brushed either adequately or regularly.
   a. not a condition   c. likely a condition
   b. possibly a condition   d. cannot determine

4. Other cleanliness conditions. (List)
   a. no other conditions   c. likely a condition
   b. possibly a condition   d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO CLEANLINESS CONDITIONS ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that the observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (Your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care
    b. personal deficiency of caregiver (List)
    c. resource deficiency (List)
    d. subcultural and/or life-style values and practices
    e. other (List)

Total = 100
J. Educational Conditions: What is the likelihood that the following conditions are present?

1. Child truant from school with caregiver knowledge.
   a. not a condition   c. likely a condition
   b. possibly a condition d. cannot determine

2. Child allowed to stay home from school when not ill.
   a. not a condition   c. likely a condition
   b. possibly a condition d. cannot determine

3. Child kept home from school by caregiver when child is not ill.
   a. not a condition   c. likely a condition
   b. possibly a condition d. cannot determine

4. Other educational conditions. (list if suspected or present)

   a. no other conditions   c. likely a condition
   b. possibly a condition d. cannot determine

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care   =
    b. personal deficiency of caregiver (list) =
    c. resource deficiency (list) =
    d. subcultural and/or life-style values and practices =
    e. other (list) =
    Total = 100
K. Clothing Conditions: What is the likelihood that the following conditions are present?

1. Child wears poorly fitting or worn out clothes/shoes.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

2. Child wears filthy clothes.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

3. Child is not dressed appropriately for weather.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

4. Other clothing conditions. (list if suspected or present)
   a. no other conditions
   b. possibly a condition
   c. likely a condition
   d. cannot determine

FOR THE FOLLOWING SIX QUESTIONS YOUR JUDGMENTS SHOULD REFLECT THE OVERALL CONDITION RELATING TO CLOTHING CONDITIONS ONLY. IF "b" OR "c" HAS NOT BEEN CIRCLED FOR ANY OF THE PRECEDING FOUR ITEMS, PROCEED TO THE TOP OF THE NEXT PAGE AND BEGIN THE NEXT SET OF QUESTIONS.

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (Your five estimates must total 100)

   a. knowledge deficiency regarding appropriate child care
   b. personal deficiency of caregiver (1st)
   c. resource deficiency (1st)
   d. subcultural and/or life-style values and practices
   e. other (1st)

   Total = 100
1. Housing Conditions: What is the likelihood that the following conditions are present?

1. Home is in poor physical condition.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

2. Home has too little space for the size of the family.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

3. Home stinks and/or is filthy and appears not to be regularly cleaned.
   a. not a condition
   b. possibly a condition
   c. likely a condition
   d. cannot determine

4. Other housing conditions. (List if suspected or present) _________________________________________________
   a. no other conditions
   b. possibly a condition
   c. likely a condition
   d. cannot determine

5. To what degree do observed or suspected conditions constitute a problem?
   No problem 1 2 3 4 5 6 7 Extreme problem

6. What do you judge to be the likely frequency of occurrence of observed or suspected conditions?
   Occurred once 1 2 3 4 5 6 7 Occurs constantly

7. What is the likelihood that observed or suspected conditions could result in short-term harm (harm which is transitory and is not life-threatening or likely to result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

8. What is the likelihood that observed or suspected conditions could result in long-term harm (harm which would result in a "flawed adult")?
   Not likely 1 2 3 4 5 6 7 Extremely likely

9. What is the likelihood that observed or suspected conditions could result in a child's death?
   Not likely 1 2 3 4 5 6 7 Extremely likely

10. What percent of "cause" for the observed or suspected conditions could be attributed to each of the five categories of "cause" listed below? (Your five estimates must total 100)
    a. knowledge deficiency regarding appropriate child care
    b. personal deficiency of caregiver (list)
    c. resource deficiency (list)
    d. subcultural and/or life-style values and practices
    e. other (list)

   Total = 100
III. Overall Assessment

1. To what extent does this family need services?
   Minimal need 1 2 3 4 5 6 7 Child cannot survive without service
   1 ______

2. What would likely be the most appropriate mode(s) of intervention given the observed or suspected conditions (circle all that apply)?
   a. casework or other individual assistance ______
   b. financial or other resource assistance ______
   c. temporary removal ______
   d. permanent removal ______
   e. other (list) _____________________________

3. To what extent does removal of a child seem to be indicated? (Check blank if already removed: ______)
   Absolutely no need for removal 1 2 3 4 5 6 7 Child cannot survive without removal
   ______

4. Conditions observed or suspected would likely:
   a. resolve themselves without intervention;
   b. resolve themselves with intervention;
   c. be controlled with intermittent intervention;
   d. be controlled with continued intervention; or,
   e. not resolve themselves or respond to intervention.
   ______

5. To what degree is child abuse present in the family?
   None present 1 2 3 4 5 6 7 8 9 10 Extreme, death probable
   ______

6. To what degree is child neglect present in the family?
   None present 1 2 3 4 5 6 7 8 9 10 Extreme, death probable
   ______

7. Comments about the family concerning information which might not be apparent from the responses in the structured portions of this data collection instrument.
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   ______

8. Please indicate the area office or other destination for this case. ___________________________
II. General Family Information

IMPORTANT: Record answers in the blank spaces provided at the end of each question.

1. What is the total number of rooms in the home excluding bathrooms? ________

2. What is the total number of bedrooms? ________

3. How would you characterize the general condition of the home (physical condition)? ________
   1 = good  2 = fair  3 = poor  4 = dilapidated

4. Has the family been evicted from an apartment or lost a home in the last six months? ________
   1 = yes  2 = no

5. Has the home been broken into during the last six months? ________
   1 = yes  2 = no  3 = don't know

6. How long has the family lived at the present address (years and months)? ________

7. What is the total family income from all sources, or your best estimate? $ ________ per ________

8. What is the total family income from all forms of public assistance, or your best estimate? $ ________ per ________

9. Does the family own an automobile, or have one available for regular use? ________
   1 = yes  2 = no

10. Does the family have a telephone in the home? ________
    1 = yes  2 = no

11. Indicate whether the following social services are needed and/or received by any family member.
    1 = do not need  2 = need, but do not receive  3 = need and receive

   A. Public day care
   B. Food stamps
   C. Free school meals
   D. Public health or medical services
   E. Homemaker services
   F. Legal services
   G. Public assistance (welfare, not AFDC)
   H. AFDC
   I. Public housing assistance
   J. Mental health services
   K. Alcohol/drug treatment
III. Individual Data: Adults in Household

**IMPORTANT**

1. Male "head" and female "head" refers to primary caregivers to the child or children such as parents, step-parents, cohabiting adults, etc.

2. If there is more than one "other adult" present in the family, record data for the individual whom you judge to be most significant to the family's functioning.

3. Where specific categories are provided with questions (e.g., 1 = female, 2 = male), record the appropriate category number for each of the adults for whom data is being recorded.

4. Where specific categories are not provided with a question, write the answer in the column spaces of each adult.

5. Questions about time duration should be answered in years and months.

6. Questions about income should indicate the amount and the unit of time for which that amount is paid (e.g., $120 per week).

7. When exact values cannot be determined for time or income questions, enter your best estimate of the value or the range wherein the value would most likely be located (e.g., 2 to 3 years, or $120 to $140).

8. If you cannot determine an answer and feel too little information exists to attempt an estimate, write "can't determine" or "C/O" in place of the answer.

9. For families where a "male head", "female head" or "other adult" are not present, leave all answer spaces blank.

10. As with the other sections, use your best professional judgment in making your assessments.

<table>
<thead>
<tr>
<th>Male &quot;Head&quot;</th>
<th>Female &quot;Head&quot;</th>
<th>Other Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>1</td>
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<td>1</td>
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<td></td>
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</tr>
<tr>
<td>1 = female</td>
<td>2 = male</td>
<td></td>
</tr>
</tbody>
</table>

6. Race/ethnicity?

1 = Black, non-Hispanic  
2 = Hispanic  
3 = White, non-Hispanic  
4 = Other (list)
7. Present marital status?
   1 = single
   2 = married, not first
   3 = divorced
   4 = cohabiting
   6 = other (list)

8. Length of present marital status (years married, years since divorce, etc.)?

9. A. If presently employed:
   1. How many hours are worked in a typical week?
   2. Regular wages or income from work?
   3. What are job duties (what does person do on the job)?

   B. If not working, but looking for work:
   1. How long has it been since last regularly employed?
   2. Regular wages or income from last job?
   3. What were job duties on last job (what did person do)?

   C. If not working and not looking for work:
   1. How long since last regular job?
   2. Primary reason not working or looking for work?

10. Highest grade completed?
   1 = 17 or more
   2 = 16 (degree)
   3 = 13 to 15
   4 = 12 (diploma)
   5 = 10 or 11
   6 = 7 to 9
   7 = less than 7

11. To what degree is individual physical functioning impaired due to a physical disability and/or health problems?
   1. Not at all.
   2. Slightly, but does not interfere with functioning as a family member.
   3. Moderately, some interference with ability to function in family.
   4. Considerably, definite limitation in functioning within family, requires help getting around or in routine tasks.
   5. Severe, dependent upon others for most or all routine functions such as eating, hygiene and/or locomotion.
12. Compared to all the other clients with which you have worked, how would you characterize intellectual functioning?

1 = considerably above average
2 = slightly above average
3 = average
4 = slightly below average
5 = considerably below average

<table>
<thead>
<tr>
<th>Male &quot;Head&quot;</th>
<th>Female &quot;Head&quot;</th>
<th>Other Adult</th>
</tr>
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<tr>
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</table>

13. Which of the following categories best represents the level of psychological functioning?

1 = No symptoms, superior functioning in a wide range of activities, life's problems seem to be very much under control.
2 = Transient symptoms may occur, but good functioning in all areas, interested and involved, socially effective, generally satisfied with life, "everyday" worries only occasionally get out of hand.
3 = Minimal symptoms may be present but no more than slight impairment in functioning, varying degrees of "everyday" worries and problems that sometimes get out of hand.
4 = Some mild symptoms (e.g., depressive moods or insomnia) or some difficulty in several areas of functioning, but generally functioning pretty well, has some meaningful interpersonal relationships, most lay persons would not consider "sick."
5 = Moderate symptoms or generally functioning with some difficulty (e.g., few friends and flat affect, depressed moods, moderately severe antisocial behavior).
6 = Any serious symptomatology or impairment in functioning that most clinicians would think requires treatment or attention (e.g., suicidal preoccupation or gesture, severe obsessional rituals, frequent anxiety attacks, compulsive drinking).
7 = Major impairment in several areas, such as work, family relations, judgment, thinking, or mood, or some impairment in reality testing or communication (e.g., speech at times obscure, illogical or irrelevant), or single serious suicide attempt.
8 = Unable to function in almost all areas (e.g., stays in bed all day), or behavior is considerably influenced by either delusions or hallucinations, or serious impairment in communication (e.g., sometimes incoherent or unresponsive) or judgment (e.g., acts grossly inappropriately).
9 = Needs supervision to prevent hurting self or others, or to maintain minimal personal hygiene, or gross impairment in communication.

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<tr>
<th>Male &quot;Head&quot;</th>
<th>Female &quot;Head&quot;</th>
<th>Other Adult</th>
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14. Drug or alcohol problem?

1 = very likely
2 = possibly
3 = not likely

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<th>Female &quot;Head&quot;</th>
<th>Other Adult</th>
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15. Extent to which religion influences beliefs and/or personal behavior?
   1 = none or very little  2 = somewhat  3 = very much

16. Approximate number of local relatives with whom person has a close relationship?
   1 = none  2 = a few  3 = many

17. Approximate number of local friends with whom person has a close relationship?
   1 = none  2 = a few  3 = many

18. Approximate number of days in a typical week this person visits friends or relatives outside the home?
   1 = none  2 = 1 or 2  3 = 3 or more

19. Approximate number of days in a typical week this person is visited by friends or relatives at home?
   1 = none  2 = 1 or 2  3 = 3 or more

20. Approximate number of days in a typical week this person does not leave home?
    1 = 0 to 2  2 = 3 to 5  3 = 6 or 7

21. How often does this person have a car at their disposal?
   1 = never  2 = very seldom  3 = a few days per week  4 = most days  5 = everyday

22. In what type of home situation was this person raised most of the time between birth and 17 years of age?
   1 = with both parents  2 = one parent and step parent  3 = only one parent  4 = with relatives  5 = foster parents  6 = other (list)

23. Likelihood that person was physically abused as a child?
    1 = not likely  2 = somewhat likely  3 = very likely

24. Likelihood that person was neglected as a child?
    1 = not likely  2 = somewhat likely  3 = very likely
25. Record a "yes" for any of the following events occurring in the last six months.
   A. Lost a job.
   B. Serious injury or illness.
   C. Death of a close friend or relative.
   D. Birth of a child.
   E. Breakup of a marriage or other serious relationship.
   F. Physically assaulted or raped.
   G. Cut-back in amount of public assistance resulting in income loss.
   H. Terminated from public assistance program resulting in income loss.

26. What is this person's relationship to the victim(s)?

27. If abuse is present or suspected, is this person the perpetrator?
   1 = definitely not    2 = possibly    3 = definitely yes

28. Does this person have a past history of abusing children?
   1 = validated complaint  2 = suspected    3 = no

29. Does this person have a past history of neglecting children?
   1 = validated complaint  2 = suspected    3 = no

30. What percent of the child care responsibilities fall to this person?

31. Compared to all the other clients with which you have worked, how would you assess this person's child rearing knowledge?
   1 = generally deficient   3 = about average
   2 = deficient in several areas   4 = above average

32. In your opinion, what effect are this person's cultural/subcultural practices instrumental in the maltreatment?
   1 = not at all   2 = small effect   3 = significant effect

33. To what degree did this person cooperate with your investigation?
   1 = generally uncooperative    3 = generally open and cooperative
   2 = cooperative but hostile    4 = person not interviewed

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<th>Male &quot;Head&quot;</th>
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<th>Other Adult</th>
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### IV. Individual Data: Children in Household

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<tr>
<th></th>
<th>Child 1</th>
<th>Child 2</th>
<th>Child 3</th>
<th>Child 4</th>
<th>Child 5</th>
<th>Child 6</th>
</tr>
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<tbody>
<tr>
<td>1. Sex? 1 = female 2 = male</td>
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<td>2. Age?</td>
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</table>
| 3. Race/ethnicity?  
  1 = Black, non-hispanic  
  2 = Hispanic  
  3 = White, non-hispanic  
  4 = Other (list) |         |         |         |         |         |         |
| 4. Has this child been physically abused?  
  1 = yes  2 = unsure  3 = no |         |         |         |         |         |         |
| 5. Has this child been neglected?  
  1 = yes  2 = unsure  3 = no |         |         |         |         |         |         |
| 6. Presently attending school in what grade? |         |         |         |         |         |         |
| 7. If in school, are there any problems in school?  
  1 = no problems  
  2 = some problems  
  3 = severe problems  
  4 = cannot determine |         |         |         |         |         |         |
| 8. Does child have any severe or chronic medical problems?  
  1 = yes  2 = no |         |         |         |         |         |         |
| 9. Was this child hospitalized as an infant?  
  1 = yes  2 = no |         |         |         |         |         |         |
| 10. Adapting the categories of Item 13 in the "Adult" section, which number best represents the level of psychological functioning? |         |         |         |         |         |         |
| 11. Does this child have any of the following behavioral problems to a greater extent than the average child with which you work?  
  A. Not obeying, unruly.  
  B. Excessive crying. |         |         |         |         |         |         |
Appendix D

PL/1 PROGRAM TO CALCULATE KAPPA
PL/I OPTIMIZING COMPILER
KAPPA:PROC OPTIONS(MAIN);

 /*************************************************************************
 SOURCE LISTING  **********************************************************/

 0 KAPPA:PROC OPTIONS(MAIN);

 1 DCL
    SEP CHAR(79),
    LABEL(13) CHAR(1) INIT('A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M');

 2 DCL
    DA(191, 2, 133) FIXED BIN,
    WA(0:11, 0:11) FLOAT,
    (P0, PE, KAPPA, NAGSUM, KAP_S0, Z0, A, B, C, KAP_SES, ZS, Z6) FLOAT,
    TYPE(191, 2) FIXED BIN;

 3 DCL
    IN FILE INPUT STREAM;

 4 DCL
    SEP=(79); /*
      OPEN FILE AND READ DATA INTO ARRAY ***************************/

 5 /*
     OPEN FILE(IN);
     DO I=1 TO 191;
     DO J=1, 2;
     GET FILE(IN) EDIT(TYPE(I, J), (DA(I, J, K) DO K=1 TO 113))
      (COL(I), 114 F(I));
     END;
     INC=1;
     IPT=0;
     /*
      ENTER MAIN PROCESSING LOOP ***************************/

 6 /*
     DO K=1 TO 113;
     DO I=0 TO 11;
     DO J=0 TO 11;
     UA(I, J)=0;
     END;
     N=191;
     IPT=IPT+1;
     IF IPT = 10 THEN DO;
     INC=INC+1;
     IPT=I;
     END;
     MAX=0;
     MIN=12;
     END;
     END;
     END;
     END;
STMT LEV NT

/ * LOAD OBSERVED FREQUENCIES INTO CELLS */
28 1 1 DO I=1 TO 191;
29 1 2 IPASS=1;
30 1 2 IF DA(I,1,K)+DA(I,2,K) = 0 THEN GOTO NULVAL;
31 1 2 IPASS=0;
32 1 2 IF DA(I,1,K) > MAX THEN MAX=DA(I,1,K);
33 1 2 IF DA(I,2,K) > MAX THEN MAX=DA(I,2,K); 
34 1 2 IF DA(I,1,K) < MIN THEN MIN=DA(I,1,K); 
35 1 2 IF DA(I,2,K) < MIN THEN MIN=DA(I,2,K); 
36 1 2 WA(DA(I,1,K),DA(I,2,K))=WA(DA(I,1,K),DA(I,2,K))+1;
37 1 2 NULVAL: IF IPASS = 1 THEN N=N-1;
38 1 2 END;
39 1 1 IMAX=MAX+1;
/
/* CALCULATE CELL OBSERVED PERCENTS */
40 1 1 DO I=MIN TO MAX;
41 1 2 DO J=MIN TO MAX;
42 1 3 IF I+J = 0 THEN GOTO PASS1;
43 1 3 WA(I,J)=WA(I,J)/N;
44 1 3 PASS1: END;
45 1 2 END;
/
/* CALCULATE MARGINAL PERCENTAGES */
46 1 1 DO I=MIN TO MAX;
47 1 2 DO J=MIN TO MAX;
48 1 3 WA(I,MAX)=WA(I,MAX)+WA(I,J);
49 1 3 WA(MAX,I)=WA(MAX,I)+WA(I,I);
50 1 3 END;
51 1 2 END;
/
/* CALCULATE PROPORTION OF OBSERVED AGREEMENT */
52 1 1 PO=0;
53 1 1 DO I=MIN TO MAX;
54 1 2 PO=PO+WA(I,I);
55 1 2 END;
/
/* CALCULATE PROPORTION OF CHANCE EXPECTED AGREEMENT */
CALCULATE MARGSUM FOR STANDARD ERROR (HD) CALCULATION
STMT LEVEL

58 1 1 DO I=MIN TO MAX;
59 1 2 PE=PE+(WA(I,IMAX)*WA(IMAX,I));
60 1 2 MARGSUM=MARGSUM+(WA(I,IMAX)*WA(IMAX,I))*(WA(I,IMAX)+WA(IMAX,I));
61 1 2 END;
/*
   CALCULATE KAPPA STATISTIC FOR PASS ***************
*/
62 1 1 KAPPA=(PO-PE)/(1-PE);
/*
   CALCULATE STANDARD ERROR OF KAPPA FOR PASS (HO) ***************
*/
63 1 1 IF ((PE+PE»2)-MARGSUM) (= 0 THEN DO;
64 1 2 KAP_SE0=9.999999;
65 1 2 50=9.999999;
66 1 2 GOTO BADPE;
67 1 2 END;
68 1 1 KAP_SE0=(1/((1-PE)*SQRT(N)))*SQRT((PE+PE»2)-MARGSUM);
/*
   CALCULATE 'Z' STATISTICS FOR PASS (HO) ***************
*/
69 1 1 Z8=KAPPA/KAP_SE0;
70 1 1 BADPE:
/*
   CALCULATE STANDARD ERROR OF KAPPA FOR PASS (HA) ***************
*/
71 1 1 DO I=MIN TO MAX;
72 1 2 A=A+(WA(I,1)*((1-(WA(I,IMAX)+WA(IMAX,1))*((1-KAPPA))*KAPPA)*2));
73 1 2 END;
74 1 1 B=0;
75 1 1 DO I=MIN TO MAX;
76 1 2 DO J=MIN TO MAX;
77 1 3 IF I = J THEN GOTO IPASS2;
78 1 3 B=B+((WA(I,1)*(WA(IMAX,1)+WA(J,IMAX))*2));
79 1 3 IPASS2: END;
80 1 2 END;
81 1 1 B=B+((1-KAPPA)**2); 82 1 1 C=((KAPPA-PE*(1-KAPPA))*2;
83 1 1 IF (A+B-C) (= 0 THEN DO;
84 1 2 KAP_SE5=9.999999;
85 1 2 55=9.999999;
86 1 2 GOTO OUTPUT;
87 1 2 END;
88 1 1 KAP_SE5=SQRT(A+B-C)/(1-PE)*SQRT(N));
STMT LEV NT

/*
   CALCULATE 'Z' SCORE FOR PASS (HA) **************
*/
89 1 1 Z5=ABS(KAPPA-0.70)/KAP_SE5;
90 1 1 Z6=ABS(KAPPA-0.55)/KAP_SE5;

/*
   PRINT RESULTS ***************
*/
91 1 1 OUTPUT: IF IPT = 1 THEN DO; PUT PAGE
   EDIT('******** KAPPA ESTIMATES OF INTRRATER RELIABILITY ********')
       (COL(13),A(65));
93 1 2 PUT SKIP;
94 1 2 END;
95 1 1 PUT SKIP(2) EDIT('ANALYSIS FOR ',LABEL(INC),IPT)
       (COL(1),A(13),F(1));
96 1 1 PUT SKIP EDIT('PO=',PO,'PE=',PE,'N=',N,'KAPPA=',KAPPA)
       (COL(10),A(3),F(6,4),COL(20),A(3),F(6,4),COL(30),
        A(2),F(3),COL(40),A(6),F(7,3));
97 1 1 PUT SKIP EDIT('HO STD. ERROR=',KAP_SE5,'HO Z VALUE=',Z0)
       (COL(10),A(14),F(8,6),COL(40),A(11),F(6,3));
98 1 1 PUT SKIP EDIT('HA STD. ERROR=',KAP_SE5,'HA(.70) Z=',Z5,
        'HA(.55) Z=',Z6)
       (COL(10),A(14),F(8,6),COL(40),A(10),F(6,2),
        COL(63),A(10),F(7,3));
99 1 1 PUT SKIP EDIT(SEP)(COL(1), F(T(79)));
100 1 1 END; END;
Appendix E

STUDY INSTRUMENT FOR WORKERS
Dear Colleague:

The items in this questionnaire are designed to elicit worker characteristics needed to answer a set of questions addressed by the child maltreatment study in which your agency is presently participating. While your name is requested so that your individual characteristics can be linked with cases assessed by you, information divulged herein will remain anonymous to persons except for myself.

Your cooperation with both this questionnaire and the study instruments is greatly appreciated. I look forward to the early summer when I will be able to share the results of this study with you.

Robert C. Foulk
Project Director
1. County: ____________________________ 
2. Your name: ____________________________ 
3. Date of birth: (month/day/year) ______ / ______ / ______ 
4. Sex: (circle one) A. Female B. Male 
5. Race/ethnicity: A. Black, non-hispanic B. Hispanic C. White, non-hispanic D. Other (list) ____________________ 
6. Present marital status: A. Single C. Married, not first time E. Divorced B. Married, first time D. Cohabiting F. Other (list) ____________________ 
7. Number of children: ____________________ 
8. In what type of home situation were you raised most of the time between birth and age seventeen? A. With both parents B. One parent and one step parent C. Only one parent D. With relatives E. Foster parents F. Other (list) ____________________ 
9. Highest grade/years of school completed: A. 9th grade or less C. 12 (diploma) E. 16 (degree) B. 10th or 11th grade D. 13 to 15 F. 17 or more 
10. Highest degree, certificate or diploma: A. None C. Associate or technical E. Masters B. High school diploma D. Bachelors F. Doctorate 
11. Highest degree in social work or a related area (psychology, other social sciences): A. None C. BS or BA E. MS or MA B. Associate D. BSSW F. MSW G. Doctorate 
12. If you have had schooling beyond high school, what was your major area of study? ____________________ 
13. Did any of your past educational experiences specifically train you for work in child welfare? A. No B. Yes
14. How much do the following theoretical explanations of human behavior influence and guide your professional activities? (circle a response for each)

A. Psychodynamic theories such as ego psychology.

B. Behavioral theories, behaviorism.

C. Cognitive theories such as social learning theory.

D. Other (list) _______________________________

15. What is your present civil service classification? ______________________________

16. Total time worked in civil service: (years/months) ______ / ______

17. Total time worked in child welfare/protective services: (years/months) ______ / ______

18. Total time worked in present position: (years/months) ______ / ______

19. For the following twelve condition categories, indicate the potential, on average, for lasting physical and/or psychological harm to children associated with problems in each category.

A. Intentional physical injury conditions: No Harm 1 2 3 4 5 6 7 Extreme Harm

B. Sexual maltreatment conditions: No Harm 1 2 3 4 5 6 7 Extreme Harm

C. Supervision conditions: No Harm 1 2 3 4 5 6 7 Extreme Harm

D. Moral conduct of parent: No Harm 1 2 3 4 5 6 7 Extreme Harm

E. Medical/dental conditions: No Harm 1 2 3 4 5 6 7 Extreme Harm

F. Nutritional conditions: No Harm 1 2 3 4 5 6 7 Extreme Harm

G. Emotional maltreatment conditions: No Harm 1 2 3 4 5 6 7 Extreme Harm

H. Drug/alcohol conditions (parent): No Harm 1 2 3 4 5 6 7 Extreme Harm

I. Cleanliness conditions (child): No Harm 1 2 3 4 5 6 7 Extreme Harm

J. Educational conditions (child): No Harm 1 2 3 4 5 6 7 Extreme Harm

K. Clothing conditions (child): No Harm 1 2 3 4 5 6 7 Extreme Harm

L. Housing conditions: No Harm 1 2 3 4 5 6 7 Extreme Harm

20. In general, to what extent are parental psychological problems instrumental in the cause of...

A. Child abuse:

B. Child neglect: