

Child Abuse: The Current Theory Base and Future Research Needs

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Contained in each causal explanation for child abuse is a theory of etiology. The nature and quality of our knowledge is approached in this paper from a review of studies of the impact of abuse on children, for which a critique of methodology is given. The relation between theory construction, study, and clinical action is addressed. Recommendations with respect to the focus and content of future research are made.

Definition and Prevalence

Child abuse has been noted to have many causes: as a childhood symptom of mental illness in parents, as the culmination of a lifelong experience of violence toward the caregiver, of environmental and social stresses on the family, and of society's acceptance and promotion of physical violence. Contained in each causal explanation is a theory of etiology. And within each theory, researchers extract from the complexity of families' lives those particular factors that are believed to be causal agents for violence against children. Clinicians are frequently frustrated by the limited focus and use of the diverse theories on child abuse. In order to select which factors to study, researchers must exclude other factors. Clinicians, facing a variety of distinctive life events, personal characteristics, and unique circumstances of the families and children they serve, are not always content with the explanations for the origin of child abuse found in the research literature.

Child abuse and child neglect are catch-all euphemisms for a variety of childhood injuries that are believed to be derived from parental acts of omission or commission. The diagnostic tags focus attention on symptoms and propose entirely too simple formulations of etiology. In this paper, child abuse refers to the many problems suggested by child abuse and child neglect. This is to focus more on the causes than on the manifestations of child maltreatment.

By the middle 1960s, after a model Child Abuse Reporting Law was promulgated by the U.S. Children's Bureau, every state adopted one or another form of child abuse reporting statute. In 1979, according to The National Center on Child Abuse and Neglect in the U.S. Department of Health and Human Services, over 711,000 reports were received. This represented a 10-fold increase in the course of a decade.

Although the true prevalence of child abuse is unknown, the concern regarding the consequences of abuse is, for individuals and for our society, universal. We address at the outset of this paper what we know of the impact of child maltreatment on the child. From this discussion will emerge a general impression of the nature and quality of our knowledge, with focus on theory and methodology of study.

Impact of Abuse on Children

The clinical literature on child abuse contains many assumptions about the consequences of child abuse for the victim, his or her family, and society. For example, Schmitt and Kempe (1975) assert that the dangers of child abuse extend beyond harm to the victim: "If the child who has been physically abused is returned to his parents without intervention, 5% are killed and 35% are seriously reinjured. Moreover, the untreated

families tend to produce children who grow up to be juvenile delinquents and murders, as well as the batterers of the next generation" (p. 111).

Such concerns on the part of clinicians derive in part from the frequently noted multigenerational nature of identified clinical cases of child abuse: the parents of abused children are often themselves perceived to have been abused and neglected in childhood (Steele and Pollock, 1974). In adulthood, the parents may have more frequent drug and alcohol abuse, criminal behavior, and psychiatric disturbance (Smith et al., 1975), leading to worry about what will be the fate of their offspring. Concerns about the developmental sequelae of child abuse are also supported by the observations of psychiatric workers on the behavior of small numbers of abused children in clinical and laboratory settings (Galdston 1971; Martin et al., 1974; Silver et al., 1969).

Corroboration for these small studies is found in reports from the Select Committee on Child Abuse of the Legislature of the State of New York (Alfaro, 1973, 1977). In a study of 4,465 children and siblings who were reported as victims of maltreatment in the early 1950s in 8 New York counties, between 10 and 30% were identified in subsequent agency contacts for several categories of juvenile misconduct. In 3 counties, 44% of the girls and 35% of the boys reported to a court as delinquent or ungovernable and had been previously reported as abused or neglected. The strength and stability of the association between reported maltreatment and juvenile misconduct was subsequently examined in reference to the sex, religion, ethnic status, and family composition of the subjects; the disproportionate representation of nonwhites and the prevalence of absent fathers (41%) and mothers (15%) was discussed in relation to existing knowledge about the etiology of child abuse and neglect and the dynamics of case reporting and intervention. (Carr, 1977). Left open in the discussion, and unfortunately not susceptible to definitive analysis in this sample, is the extent to which the preferential selection of poor children both for reporting for maltreatment and for delinquency may have affected the perceived association and the extent to which poverty per se may have determined both problems. Such an analysis would best be conducted on a sample generalizable to all maltreated children in New York and controlled for certain potentially confounding attributes (Newberger and Daniel, 1976).

In the single controlled study referenced above (Smith et al., 1975), a failure to match cases and controls on social class led to a serious confounding by social class in the analysis. Abusive parents were found to have a number of social and psychiatric problems in relation to the comparison group, but the contribution of a critical third factor, poverty, could not be extricated from the case-control differences because the cases were significantly poorer than the controls. The New York State study, though impressive in numbers and worrisome in conclusions, is further difficult to interpret because it is both biased to favor poor children for selection, and uncontrolled.

The contribution of Elmer (1977 a, 1977b) brings into focus the limited state of our understanding of the long-term effects of child maltreatment. Her findings suggest that we must attend to the social and familial circumstances which equally affected the outcomes of cases and controls. The study concludes "that the effects on child development of lower-class membership may be as powerful as abuse" (Elmer, 1977b; p. 80). Elmer's "follow-up study" (her characterization) was composed of 17 abused children and 17 children who were victims of accidents, matched in age, sex, race, and socioeconomic status of their families. Each of these "traumatized" groups was matched with a group of children who had not suffered early trauma on these variables, in addition to the attribute of early hospital admission. Nine still intact "abusive families" were identified from the original case pool and were studied intensively in regard to the stability of demographic characteristics, indices of personal and social support for parents and children, mother's behavior in relation to the child, and the following attributes of the children: health; language and hearing; perceptual-motor coordination; school ability and achievement; and behavior, focusing especially on impulsivity, aggression, and empathy.

The startling paucity of case-control differences in this study is described with candor and humor: "When the follow-up study was completed, we were at a loss to explain the lack of significant results differentiating between the abused, accident, and comparison groups or any of the subgroups. Across the board, there were very few differences between the groups, and these were relatively minor. The follow-up

staff was astonished and disbelieving. It then turned out that several of the examiners had kept a private tally, showing their opinions of the classifications of each child. In no case had these tallies been correct any more often than would be true of selections made purely by chance. In addition, the clinicians' opinions had differed for individual children, showing that their combined judgments could not effectively differentiate the groups" (Elmer, 1977; p. 275).

The implications of Elmer's study have been discussed elsewhere in detail in a discussion for pediatricians and others concerned with child health (Cupoli and Newberger, 1977). We noted that the findings suggest that health or social intervention alone will allay the developmental impact neither of abuse nor of poverty, for both the case and the control groups suffered impressive developmental losses, despite the provision of medical and social services.

This is not to say, however, that abuse or poverty dooms a child to failure. If a child and his family have available and can participate in several well-conceived and administered intervention opportunities, a child's prospect for healthy psychological growth is enhanced. Martin (1976) points out in the summary of his book on the abused child: "We have especially focused on treatment for developmental delays and deficits, crisis care, psychotherapy and pre-school or day care....These various treatment modalities for the child have worked. They have made possible considerable growth and development in the abused child. They should be considered as treatment options for all abused children" (p. 93). Martin's study has serious limitations, as will be addressed subsequently, but his descriptions of intervention and conclusions about their relationship to the children's development are useful and persuasive.

Such comprehensive programs for disadvantaged families as the Maternal and Infant Health programs of the Department of H.H.S. have yielded important and encouraging results in child health and development, and analyses of the data and issues in the heredity-environment controversy suggest that a nurturant and supportive environment can permit the natural unfolding of a child's best qualities and capabilities (Martin, 1976). Many materially poor families are able to provide sufficient love, stimulation, and discipline to enable their offspring to grow and develop well. But, to paraphrase a contribution to this discussion by Wolff (1976), so long as poverty persists, we will have the technical wherewithal neither to anticipate nor to prevent its damaging consequences on parents and children.

In assessing the meaning of the Elmer (1977b) study, it is well also to attend to the apparent developmental resiliency of the abused children, in comparison to those in the control group. The strengths of these children lead inevitably to critical questions about the pathologic orientation toward both children and parents implicit in current practice and in other research.

A critical review of the conceptual bases, design, methodology, and instrumentation of currently available work on the developmental impact of child maltreatment suggests that many investigators begin with an ominous portent of doom and select small uncontrolled samples, generally from severely impoverished populations, and examine them with psychologically focused, loosely quantified tools.

These reports on the physical, social, emotional, and cognitive developmental consequences of child abuse yield inescapably to an impression of serious and profound pathology in the victims, but analysis of these studies demonstrates the following major methodologic flaws which limit their generalizability, scientific validity, and utility for building theory and for guiding practice:

1. Bias of selection favoring poor children (de Castro et al., 1978; Galdston, 1965, 1971; Morse et al., 1970; Silver et al., 1969; Starr, 1978);
2. Sample size inadequate to form claimed associations (Galdston, 1965; Koel, 1969; Lynch, 1976; Sandgrund et al., 1975; Silver et al., 1969);
3. Lack of a comparison group (Galdston, 1971; Koel, 1969; Martin et al., 1974; Silver et al., 1969);

4. Inadequate matching of cases and members of the comparison group on socioeconomic status and other variables, leading to consequent confounding by poverty or other spurious attributes (Lynch, 1976; Morse et al., 1970);
5. Imprecise definitions of child abuse or neglect (Galdston, 1965; Koel, 1969; Lynch, 1976; Martin et al., 1974; Morse et al., 1970; Sandgrund et al., 1975; Silver et al., 1969); and
6. Conceptual framework restricted to psychodynamic dimensions (Galdston, 1965; Glaser et al., 1968; Martin et al., 1974).

If the knowledge base on the impact of maltreatment on children appears to be insubstantial, there is no paucity of recommendations for intervention and treatment based on current presumptions and fears. These have been reviewed by us elsewhere in relation to the state of our understanding of child abuse epidemiology (Newberger and Daniel, 1976), the principles and implications of current practice (Newberger and Hyde, 1975), proposals to screen children for risk of maltreatment (Daniel et al., 1978), the functional implications of present classification systems for childhood illness of familial and social origin (Newberger et al., 1977), the approach to maltreatment in child health and legal policy (Boume and Newberger, 1977; Newberger et al., 1976), the implications for social policy of child maltreatment research which focuses on samples which are disproportionately representative of families which are poor, socially marginal, or of ethnic minorities (Daniel et al., 1978; Newberger and Daniel, 1976), and the extent to which family crisis and childhood injury has become overly professionalized (Newberger and Bourne, 1978). In brief summary, despite the speculative nature of the prevalent conclusions about the developmental sequelae of child abuse, professional warnings support a practice of separating children from their natural homes in the interest of their and society's protection. They focus professional concern and public wrath on "the untreated families" (Schmitt and Kempe, 1975) and may justify punitive action to save us from their children. The lack of knowledge, or, perhaps more accurately, the inadequate understanding of the state of knowledge promoted by the anxiety which child abuse stimulates in all of us, is translated to recommendations for intervention, many of which are heavy-handed, unspecific, and insensitive; and some of which can be downright harmful.

When populations representative of all children and adults are studied in longitudinal perspective, a picture of development emerges which contrasts sharply with the dismal portraits of maltreatment and its effects. Quite different and more optimistic perspectives on children's growth, development, and adaptation to hardship are offered in the reports of the Fels Research Institute's longitudinal study (Kagan and Moss, 1962), in the more recent publications from the Kauai and Newcastle longitudinal studies of child development (Werner and Smith, 1977), and the Levinson (1978) and Vaillant (1978) studies of adult development. Although the theoretical orientations, cultural contexts, ascertainment and follow-up intervals, and scientific instrumentation in these reports differ from one another (and the Levinson and Vaillant reports are of the development of selected, successful adult men), it is well to note briefly their principal points of convergence with our findings about health, social and psychological competence, and vulnerability. These and our studies argue for a broadened conception of the etiology of developmental attrition, embracing social, familial, and environmental, as well as psychological dimensions.

Several large-scale studies, employing broadly conceived, developmental conceptions of child abuse and its impact, have been granted support recently by The National Center on Child Abuse and Neglect. Their designs and some rigorous thought about the etiology and consequences of maltreatment are reported in the recent issue of *New Directions for Child Development* under the title, "Developmental Perspectives on Child Maltreatment" (Rizley and Cicchetti, 1981).

Importance of Theory to Knowledge, Prevention, and Treatment of Child Abuse

Insufficient attention has been given in the child abuse literature to the theoretical construction of knowledge of the problem. Although this has in part to do with the fascination by clinicians with the bewildering variety of physical and psychological manifestations of the many problems which are characterized as child abuse or neglect, the nature of the process whereby etiologic formulations are made and tested has received scant attention. An insufficient theory base may contribute more to the failure of programs to treat child abuse than the lack of intervention resources (Gelles, 1973; Newberger, 1977). An adequate understanding of etiology is necessary in order to focus intervention efforts where they will be most effective. For example, in a program where child abuse is understood as a product of parental psychopathology, individual counseling is the logical and customary intervention response. The failure of counseling to effectively treat many families in such programs is not parental failure, nor even necessarily a failure of psychotherapeutic skill and compassion. Rather, it is a failure deriving from a theory of etiology which is too narrowly defined to be broadly effective. It is necessary, therefore, to come to terms with the theories which guide work with families in which abuse has occurred and with the assumptions implicit in those theories.

Before turning to the major theoretical approaches of child abuse and their operational consequences for treatment and prevention, it is well to reflect briefly on the uses and construction of theories. All human beings construct theories. Theories are necessary to explain and to contain the complexities of our lives. Some of our theories are better than others. Some have been firmly tested by experience over time. Some are tentative beginnings. Some may be overextensions of theories that fit past experience, but which misfit present realities. Some theories are borrowed from others without examining whether they accurately fit what we perceive, or whether we accurately perceive what we think they fit. Indeed, every theory distorts. In order to select, we must exclude; and our theories of what to look for limit what we see. Yet without theories, we would be helpless to select what is important from what is, and to act purposefully in the world.

The construction of scientific theories is also a process of searching for pathways through experience in order to explain cause and effect. In contrast with personal theories, scientific theories have formal rules for testing the accuracy of their fit with experience. Yet the characteristics of a good theory are not dissimilar for individuals and for fields of inquiry. A good theory must, first of all, make sense. It must account reasonably for a good part of the data or experience, and it must account for that data better than rival theories. It must be plausible to other people searching for pathways through the same terrain. And it must be useful. It must enable one to operate more effectively in the world.

The explanatory theories for child abuse can be classified into two groups: unitary and interactive. The unitary theories are these: psychoanalytic, social learning, environmental, cognitive developmental, and labeling.

The psychoanalytic approach posits that unconscious parental drives and conflicts determine abusive behavior (Galdston, 1973; Steele and Pollock, 1974). In a review of the abundant literature which views child abuse from a psychoanalytic perspective, the primary causes were seen to be in the parents' psychological troubles. Kempe et al. (1962), for example, described the abuser as the "psychopathological member of the family."

Another of the consistent explanations proffered for child maltreatment is that individuals who have experienced violent and abusive childhoods are more likely to grow up to become child and spouse abusers than individuals who experienced little or no violence in their childhood years (Parke and Collmer, 1975). Social learning theory suggests that child abuse is learned behavior. Violence in one's family of orientation is seen as predictive of violence in one's family of procreation.

Environmental theory posits that child abuse results from social and environmental stress. Stressful life events and conditions, such as poverty, unemployment, inadequate housing, and a violent social milieu are prominent factors considered within this theoretical orientation. The perspective emphasizes factors in the environmental context of a family, which, by being felt as overwhelmingly stressful, interfere with a

parent's ability to care for its children. Child abuse can be viewed as a symptom of distress in a family that compromises its ability to protect and nurture its children.

A somewhat newer approach to understanding child abuse has been offered by research on parental awareness (C. Newberger, 1980). This theory states that child abuse reflects an underlying egocentricity of the parent's understanding of the child and of the parental role. This cognitive-developmental approach identifies four levels of parental thinking about children and the parental role. The developmental level, at which parents understand the child and the parental role, is viewed as related to child abuse and neglect (C. Newberger and Cook, 1983).

The labeling theory proposes social inequality as a basis for its approach to child- abuse. This theory posits that the interests of dominant power groups are served by defining as deviant a class of socially marginal individuals (the "child abusers"), whose individual problems become the proper concern of the helping professionals (Pfohl, 1977). This perspective, supported by some empirical work using officially reported cases of child abuse, argues that even though domestic violence occurs at all income levels, low socioeconomic status families are more likely to be labeled as abusive.

Each of the above theories could be described as "unitary theories." In other words, each offers an explanation of child abuse from a single point of view. Each theory has power and adherents because each theory explains some part of the data. Historically, psychoanalytic explanations have guided much of the work in this field. Approximately one parent in ten has been found to have a definable psychiatric condition, but that figure is comparable to the rest of the population (Smith et al, 1975). Further, child abuse has been found to be associated with several personality types (Green, 1976), and no particular diagnosis can predict child abuse.

Other unitary theories share comparable limitations in their ability to explain enough of the data to effectively guide intervention. For example, environmental theories do not take into account intra-individual and inter-individual sources of strength and weakness which render families more or less vulnerable to environmental experiences and conditions. Nor do they account for child abuse in seemingly affluent homes. And labeling theory, although helpful in pointing out pervasive biases with respect to who gets identified and reported as abusive, is of scant help in the emergency room when addressing the needs of a family whose child may have cigarette burns on its body.

Increasingly, sensitive professionals and researchers are critically evaluating the utility of unitary theories of etiology and are integrating the more helpful parts of these theories into interactive, multicausal theories. These theories seek to understand how different aspects of experience may exacerbate or weaken other aspects of experience. Are particular personality types more vulnerable to certain kinds of environmental experiences? Are there features of the social environment, or ways of understanding the child, that enable families to cope with stress without resorting to violence? Child abuse may be understood in this theoretical context as a symptom of dysfunction in a complex ecosystem with many interacting variables. Furthermore, the task of understanding is not in fitting the family into a narrow theoretical box, but rather in finding the explanation that explains this family.

Several studies have conceptualized child abuse as a phenomenon to be approached from the multiple levels of individual, family, and society, leading the field to a more comprehensive theory base from which to guide intervention (Garbarino, 1975; Newberger et al, 1977; Starr, 1978).

A clinical model for understanding child abuse, which draws from ecologic theory was recently developed to enable pediatricians to organize the complex data with which they contend in clinical practice (Bittner and Newberger, 1981).

Future Research Needs

Two recent surveys suggest substantial defects in the knowledge base on child abuse. Gelles' (1980) review of family violence research in the 1970s suggests an urgent need for theory testing and building for longitudinal study designs, for samples drawn from nonclinical populations, and for increased diversity of measurement instruments and data-collection techniques. Gelles subsumes child abuse in his concept of family violence, an approach which appears to be increasing in favor among researchers in the field. He summarizes aptly the progress in the last decade: "Whereas research in the '60' s tended to view domestic violence as rare and confined to mentally disturbed and/or poor people, research in the '70's revealed family violence as an extensive phenomenon which could not be explained solely as a consequence of psychological factors or income" (p. 873).

Garbarino (1981) surveyed 14 nationally recognized experts and concluded that "we are making some progress, but that major questions remain unanswered." The following principal research issues emerged in the Garbarino survey:

1. *Incidence estimates continue to be confused* by a lack of precision in the definitions used in research, policy, law, and practice. Studies of maltreated adolescents suggest different causes and consequences from cases involving younger children.

2. *Identification of risk for maltreatment remains statistically unreliable*, thus frustrating attempts at early intervention and prevention.

3. *Treatment of child abuse is inadequate*, and successful treatment is imperfectly understood. Conventional social-work approaches are associated with high rates of re-injury, but low recidivism is reported with innovative and resourceful programs with selected clinical populations.

4. *Nearly all treatment efforts focus on parents*. Not only are the developmental and health needs of children ignored, but the children may be harmed by interventions which place them in foster-home or institutional-care settings. Focus on the childhood antecedents, precipitants, and concomitants in research and practice is limited. Poorly differentiated clinical approaches neglect the unique needs of adolescents.

5. *Preventive initiatives are largely unexplored*, notwithstanding, for example, the suggested potency and cost-effectiveness of facilitating the formation of bonds of parent-child attachment at birth.

6. *The medium and long-term consequences of physical and sexual abuse are poorly understood*, although experts concur on the increased vulnerability for severe problems in school, in behavior in the community, and in later family life. Few longitudinal studies have begun, and these are likely soon to end, because of severe constraints on research funding.

Conclusions

Clinical approaches to child abuse remain constrained by an inadequate foundation of theory and knowledge. Clinicians working with violent families typically work on a case-by-case basis. Hence, they must practice what they know and accumulate new knowledge through experience with the type of families they see (Light, 1979). Although eager to improve the success of their work and to improve the quality of data available to others in the field, they typically have little time to piece together the results of their work and of studies in the field. Nonetheless, clinicians have made important contributions to our knowledge base on child abuse.

Because academic research and clinicians have different work roles and work in different organizations, they frequently approach the same topic in different ways (Gelles, 1982; Snyder et al., 1982). Shared concerns by both researchers and clinicians working in the family violence field have not led to a high level of interchange regarding concepts, theory, or data. Research results frequently are not in a form to guide

clinical decisions. The concerns most central to clinicians frequently are not phrased in a way that provides focus to research.

Well-conceived, controlled, longitudinal studies hold great promise for prevention and treatment of child abuse. This research must be conceived, operationalized, and disseminated in such a way as to provide useful guideposts for practice and policy.

References

ALFARO, J. (1973), Report on the Feasibility of Studying the Relationship Between Child Abuse and Later Socially-Deviant Behavior. New York: New York State Assembly Select Committee on Child Abuse (August).

(1977), Report on the Relationship Between Child Abuse and Neglect and Later Socially-Deviant Behavior. Uncorrected Draft of a Paper Presented at a Symposium Exploring the Relationship Between Child Abuse and Delinquency. Seattle: University of Washington (July 21 and 22).

BITTNER, S. & NEWBERGER, E. H. (1981), Pediatric understanding of child abuse and neglect. *Pediat. Rev.* 2:197-207.

BOURNE, R. & NEWBERGER, E. H. (1977), "Family autonomy" or "coercive intervention"? Ambiguity and conflict in a proposed juvenile justice standard in child protection. *Boston Univ. Law Rev.*, 57:670-706.

CARR, A. (1977), Some Preliminary Findings on the Association Between Child Maltreatment and Juvenile Misconduct in Eight New York Counties. Report to the Administration for Children, Youth, and Families: National Center on Child Abuse and Neglect (October 20).

CUPOLI, M. & NEWBERGER, E. H. (1977), Optimism or pessimism for the victim of child abuse? *Pediatrics*, 59:311-314.

DANIEL, J. H., NEWBERGER, E. H., KOTELCHUCK, M. & REED, R. B. (1978), Child abuse screening: limited predictive power of abuse discriminants in a controlled study of pediatric social illness. *Int. J. Child Abuse Neglect*, 2:247-259.

DECASTRO, F., ROLFE, U. & HEPPE, M. (1978), Child abuse: an operational longitudinal study. *J. Child Abuse Neglect*, 2:19-28.

ELMER, E. (1977a), A follow-up study of traumatized children. *Pediatrics*, 59:273.

(1977b), *Fragile Families, Troubled Children: The Aftermath of Infant Trauma*. Pittsburgh: Univ. of Pittsburgh Press.

GALDSTON, R. (1965), Observations of children who have been physically abused and their parents. *Amer. J. Psychiat.*, 122:440-443. - (1971), Violence begins at home. *This Journal*, 10:336-350.

GARBARINO, J. (1975), A preliminary study of some ecological correlates of child abuse: the impact of socioeconomic stress on the mother. *Child Developm.*, 47:178-185.

(1981), What we know about child maltreatment (unpublished manuscript).

GELLES, R. J. (1973), Child abuse as psychopathology: A sociological critique and reformulation. *Amer. J. Orthopsychiat.*, 43:611-621.

- (1980), Violence in the family: a review of research in the seventies. *J. Marr. Fam.*, Nov. 873-885.
- (1982), Applying research of family violence to clinical practice. *J. Marr. Fam.*, Feb. 9-20.
- GLASER, H. H., HEAGARTY, M. D., BULLARD, D. M., JR. & PIVCHIK, E. C. (1968), Physical and psychological development of children with early failure to thrive. *J. Pediat.*, 73:690-698.
- GREEN, A. H. (1976), A psychodynamic approach to the study and treatment of child-abusing parents. *This Journal*, 15:414-429.
- KAGAN, J. & Moss, H. A. (1962), *Birth to Maturity: A Study in Psychological Development*. New York: Wiley.
- KEMPE, C. H., SILVERMAN, F. N., STEELE, B. J. (1962), The Battered Child Syndrome. *J. Amer. Med. Assn.*, 181:17-24.
- KOEL, B. S. (1969), Failure to thrive and fatal injury as a continuum. *Amer. J. Dis. Child.*, 118:51.
- LEVINSON, D. J. (1978), *The Seasons of a Man's Life*. New York: Knopf.
- LIGHT, D., JR. (1979), Uncertainty and control in professional training. *J. Health Soc. Behav.*, 20:310-322.
- LYNCH, M. (1976), Risk factors in the child: a study of abused children and their siblings. In: *The Abused Child*, ed. H. Martin. Cambridge, Mass.: Ballinger, p. 43.
- MARTIN, H. P. (1976), Learning and Intelligence. In: *The Abused Child*, ed. H. Martin. Cambridge, Mass.: Ballinger.
- BEEZLEY, P., CONWAY, E. G. & KEMPE, C. H. (1974), The development of abused children. *Adv. Pediat.*, 21: 25-73.
- MORSE, C. W., SAHLER, O. J. Z. & FRIEDMAN, S. B. (1970), A three year follow-up study of abused and neglected children. *Amer. J. Dis. Child.*, 120:439-446.
- NEWBERGER, C. (1980), The cognitive structure of parenthood: designing a descriptive measure. *New Directions for Child Develpm.*, 7:45-67.
- COOK, S. (1983), Parental awareness and child abuse and neglect: cognitive-developmental analysis of urban and rural samples. *Amer. J. Orthopsychiat.*, in press.
- NEWBERGER, E. H. (1977), Child abuse and neglect: toward a firmer foundation for practice and policy. *Amer. J. Orthopsychiat.*, 47:374-376.
- BOURNE, R. (1978), The medicalization and legalization of child abuse. *Amer. J. Orthopsychiat.*, 48:593-607.
- DANIEL, J. H. (1976), Knowledge and epidemiology of child abuse: a critical review of concepts. *Pediat. Ann.*, 5:140.
- HYDE, J. N. (1975), Child abuse: principles and implications of current pediatric practice. *Pediat. Clin. N. Amer.*, 22:695.

- NEWBERGER, C. M. & RICHMOND, J. B. (1976), Child health in America: toward a rational public policy. *Millbank Mem. Fund Quart.* 54:249.
- REED, R. B., DANIEL, J. H., HYDE, J. N. & KOTELCHUCK, M. (1977), Pediatric social illness: toward an etiologic classification. *Pediatrics*, 50: 178-185.
- PARKE, R. D. & COLLMER, C. W. (1975), Child abuse: an interdisciplinary analysis. In: *Review of Child Development Research, Vol. V*, ed. E. M. Hetherington. Chicago: Univ. of Chicago Press, pp. 509-590.
- PFOHL, S. J. (1977), The "discovery" of child abuse. *Soc. Problems*, 24:310-323.
- RIZLEY, R. & CICCHETTI, D. (eds.) (1981), Developmental perspectives on child maltreatment. *New Directions for Child Developm.* 11.
- SANDGRUND, A., GAINES, R. W. & GREEN, A. H. (1975), Child abuse and mental retardation: a problem of cause and effect. *J. Ment. Defic.* 19:327-330.
- SCHMITT, B., & KEMPE, C. (1975), Neglect and abuse of children, In: *Nelson Textbook of Pediatrics*, Ed. 10, ed. V. Vaughn & R. McKay. Philadelphia: W. B. Saunders.
- SILVER, L. B., DUBLIN, C. C. & LOURIE, E. S. (1969). Does violence breed violence? Contributions from a study of the child abuse syndrome. *Amer. J. Psychiat.*, 126:404-407.
- SMITH, S. M., HANSON, R. & NOBLE, S. (1975), Parents of battered children: a controlled study. In: *Concerning Child Abuse*, ed. A. W. Franklin. New York: Churchill-Livingston.
- SNYDER, J. C., BOWLES, R. T. & NEWBERGER, E. H. (1982), Improving research and practice on family violence: potential of a hospital-based training program. *Urban Soc. Change Rev.*, 15:37.
- STARR, R. H. (1978), Controlled study of the ecology of child abuse and drug abuse. *Int. J. Child Abuse Neglect*, 2:19-28.
- STEELE, B. J. & POLLOCK, C. B. (1974), A psychiatric study of parents who abuse infants and small children. In: *The Battered Child*, Ed. 2, ed. R. E. Helfer & C. H. Kempe. Chicago: University of Chicago, pp. 80-133.
- VAILLANT, G. E. (1978), *Adaptation to Life*. Boston: Little, Brown.
- WERNER, E. E. & SMITH, R. S. (1977), *Kauai's Children Come of Age*. Honolulu: Univ. of Hawaii Press.
- WOLFF, P. H. (1976), Mother-infant interactions in the first year. *New Eng. J. Med.*, 295:99.

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