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**DETERMINING HISTORY OF VICTIMIZATION AND
POTENTIAL FOR ABUSIVE BEHAVIOR IN
U.S. NAVY RECRUITS**

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Determining History of Victimization and
Potential for Abusive Behavior in
U.S. Navy Recruits

Lex L. Merrill

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Summary

Problem. At present, it is difficult to develop programs and policies for the prevention and treatment of abusive behavior because base rate data are not available. A study is needed that will provide base rate data for Navy recruits concerning their history of and potential for abusive behavior. Information related to correlational variables and factors associated with abusive behaviors is required. In addition, data are needed to estimate the number of recruits that may profit from treatment and prevention programs.

Objective. The major objective was to determine whether psychometrically valid instruments are available that would provide data to aid in the creation of abuse prevention and treatment programs. The specific goals for meeting this objective were to compile a referenced listing of factors that have been found to be associated with abusive behavior, and to ascertain the reliability, validity, and appropriateness for use of relevant instruments.

Approach. The literature associated with abusive behavior was reviewed, experts were consulted, and the instruments related to the assessment of exposure to, and perpetration of, child abuse, spouse abuse, and sexual/physical aggression were evaluated.

Results. Although the development of instruments to survey for abusive history and potential is in its infancy, the results show that reliable and valid instruments are available that will provide a reasonable profile of recruits' history of and potential for abusive behaviors. The compilation of models, theories, factors, and characteristics related to abusive behavior revealed that abusive behavior is a complex area of inquiry that requires equally complex instruments and methods of investigation if comprehensive knowledge of such behavior is to be acquired.

Conclusions. Recommendations are given for instruments to survey recruits to provide descriptive data to aid in the creation of prevention and treatment programs for abuse victims and perpetrators. The results of the proposed survey may also aid in the creation of educational and treatment programs for individuals at risk for becoming victims and perpetrators of abusive behavior. The collection of descriptive data would be a first step in the study of abusive behavior, but longitudinal and treatment follow-up studies are needed to gain valid outcome measures.

The institution of intervention programs at the recruit level would improve the operational efficiency of the Navy and Marine Corps through the treatment of dysfunctional symptomatology. Abuse and its sequelae have a detrimental effect upon work performance and retention of Navy members.

The field of modern child abuse research began relatively recently. With the advent of radiology in the mid-1940s, evidence of old and new internal injuries in children became available. Caffey (1946) was the first to x-ray children and discover injuries that could not be readily explained. Wooley and Evans (1955) and Caffey (1957) suggested that the injuries first reported by Caffey (1946) were intentionally inflicted and that those responsible were probably parents or caregivers. Publication of a journal article titled, "The Battered Child Syndrome," (Kemp, Silverman, Steele, Proegmueller, & Silver, 1962) directed official attention to the seriousness of child abuse. Thereafter, all states passed legislation to protect victims and mandate reporting of suspected incidents. Finally, in 1974, the Child Abuse Prevention and Treatment Act was enacted, and the resources of the federal government were directed to be used to combat child abuse.

Although mandated reporting and current treatment programs appear to be of significant value in the protection of abused children, it is unclear whether they have had an effect on the incidence of abuse. Recent estimates of the incidence of child abuse in the United States range from more than 350,000 to almost 2 million per year (Gelardo, Sanford, & Ether, 1987). Daro and McCurdy (1991) estimated that in 1989, more than 2.5 million children were reported to Child Protective Services (CPS) agencies as victims of child maltreatment. This figure indicates that 39 out of every 1,000 children are victims of abuse. In addition, the number of reports has increased by an average of 5% per year since 1985. The estimates of the incidence of abuse differ because of the various methods used to compute them and the omission or inclusion of nonreported cases.

The demographic and psychological characteristics of abusers and the physical and psychological sequelae of child abuse have been widely reported (for comprehensive reference lists see Garbarino, Guttman, & Seely, 1989; Milner & Crouch, in press). However, the data gathered thus far are mostly correlational, and their usefulness in designing treatment plans for abusers or abused children is uncertain. For instance, many studies have reported a relationship between a childhood history of abuse and parental physical abuse (i.e., if parents were abused during childhood, then they will abuse their children). Although a definite relationship exists between a history of childhood abuse and abuse potential (the Intergenerational Hypothesis), the relationship is not a simple one, and its explanation therefore requires the use of complex instruments and interpretations. However, a positive linear correlation has been found between the chronicity (duration and frequency) of history of childhood abuse and adult abuse potential (Milner, Robertson, & Rogers, 1990). Nevertheless, it appears that overall, a history of childhood abuse accounts for less than 10% of the variance in the prediction of abuse (J.S. Milner, personal communication, May 7, 1992).

Numerous instruments (e.g., Childhood History Questionnaire, Child Abuse Potential Inventory, Michigan Screening Profile of Parenting, Childhood Level of Living Scale, Parenting Stress Index) have been used to collect data for studies of child abuse, and the temporal stability and validity of the instruments appear to vary considerably. The instruments used in child abuse studies vary with the interest of the researcher, including physical, physiological, and psychological measures. The results from such studies are then used to generate numerous inferences and hypotheses. Therefore, the data, their interpretation, and the application of their results to treatment programs must be viewed with caution, especially when the psychometric properties of the instruments used to collect the data are unknown.

A positive association between spouse abuse and child abuse was hypothesized by Walker (1979). Milner and Gold (1986) subsequently found that more than 36% of spouse abusers were also child abusers. Studies of spouse abusers have found numerous variables related to spouse abuse. For example, Goldstein and Rosenbaum (1985), using a battery of measures (Short Marital Adjustment and Prediction Test, Rosenberg Self-Esteem Scale, a spouse interaction test, and the Marlowe-Crowne Social Desirability Scale), found that abusive husbands had low self-esteem and were more likely to misperceive the behavior of their wives. Others, such as Neidig, Friedman, and Collins (1986) dispute the studies that have attributed the etiology of spouse abuse to attitudinal characteristics and state that measures of stress and marital adjustment are more accurate assessors of spouse abuse potential than attitudinal and personality measures. Still other researchers advocate the use of global measures to assess the potential for abuse. For example, Kratcoski (1984) found that the more dysfunctional a family was the more likely it was that intrafamily violence would occur.

As with the studies of child abuse, the studies of spouse abuse have also used many different instruments (e.g., Family Life Questionnaire, Family Environmental Scale, Health and Daily Living Form, Sex Knowledge and Attitude Test, Method of Conflict Resolution Questionnaire, Personal Assertion Analysis, and Coopersmith Self-Esteem Inventory) to assess characteristics associated with abusive spouses and abused spouses (e.g., Johnson & Boren, 1982). Many investigators have created unnamed instruments specifically for their studies (e.g., Davis & Carlson, 1986; Kratcoski, 1984; and Homant & Kennedy, 1985). The psychometric properties of the instruments that have been used vary, and the appropriateness of their use has, in many cases, not been evaluated (Briere, 1992).

Physiological, biological, and psychological data have been used to predict sexual aggression. However, only psychological data will be discussed because it can be collected via questionnaire. For example, Peterson and Franzese (1987) found that attitudes and beliefs of men appear to be related to sexual abuse of women. They discovered a positive relationship between inclination to abuse and belief of rape myths, trivializing sexual assault, and outdated attitudes of women's role in society.

Few studies of abused women have addressed implications for assessment, treatment, and intervention. Van-Egmond and Jonker (1988) found a positive correlation of female suicide and suicide attempts with exposure to physical and sexual abuse and aggression, which indicated that abused women may be at high risk. Johnson and Boren (1982) found that married, abused women had a lower level of sexual knowledge than women who were not abused. They also found that abused women used either silence or argumentation to resolve conflicts more frequently than women who were not abused.

The coping strategies that abused women and abusive men use during stressor events appears to be similar: they become silent or argumentative. Data suggest that if abuse victims use active, problem-solving behaviors they may be able to attenuate the occurrence of abusive incidents (e.g., Finn, 1985). Although this advice may be well-meaning, it appears to blame the victims of abuse (i.e., if the victims would or could act differently they would not be abused). At the present time, a history of sexual aggression seems to be the best predictor of future aggression. As in other areas of abuse, however, multivariate models appear to offer the greatest potential for accurate prediction of sexual abuse (Hall, 1990).

Many studies have made treatment recommendations based upon correlational findings. For example, as previously cited, Goldstein and Rosenbaum (1985) found that spouse abusers had low self-esteem and frequently misperceived their wives' behavior. Based on their findings they recommended treatment strategies that, theoretically, would alter the correlational variables. A serious problem with the recommendations from this and other such correlational studies is that the correlations may have little or no causal connection. Future studies need to be conducted that will establish causal or etiological factors that can then be used as primary considerations in treatment development.

Overall, this brief overview suggests that a comprehensive review of the literature is required to assemble the factors and variables that have been found to be associated with child abuse, spouse abuse, and sexual aggression. In addition, a review of currently available instruments is needed to ascertain their temporal stability, validity, capacity for assessment of abuse potential, and their relationship to treatment recommendations. Finally, Briere (1992) states that it is time for a "second wave" of research to begin in the field of sexual abuse effects. This opinion can probably be extended to include the fields of child and spouse physical abuse. The "first wave" of research was composed of studies that established links between childhood events and personality characteristics. These studies often used designs that were not rigorous and employed instruments of dubious value. Despite such deficiencies, inferences were drawn from these studies that led to the creation of treatment programs. Briere states that it is time for studies that use scientifically rigorous designs and instruments with established reliability and validity.

The need to survey for history and potential of abusive behavior has grown out of the recognition that Navy personnel and their dependents are involved in a significant number of abuse cases. A study is needed that will review the literature, instruments, and solicit the opinion of experts to provide recommendations for surveying Navy recruits for their history of and potential for child abuse, spouse abuse, and sexual aggression. The results of such a study should provide specific recommendations for instruments proven to be reliable, valid, and appropriate for surveying large groups.

Approach

The primary objective of a survey of U. S. Navy recruits for their history of and potential for abusive behaviors is to provide data that will aid in the development of prevention and treatment programs. Integral to the gathering of legitimate data are instruments that have acceptable temporal stability, validity, and the potential to collect data concerning pertinent correlational variables and factors associated with abusive behaviors. A necessary first step in the selection of instruments is the compilation of models, theories, factors, and characteristics associated with abusive behavior that will allow for a delineation of the field. Additionally, expert opinion and state-of-the-art instrumentation should be consulted to ensure the effectiveness of the methodology employed in the study. Therefore, the abusive behavior literature was reviewed, experts in the field were consulted, and the instruments related to the assessment of exposure to and perpetration of child abuse, spouse abuse, and sexual/physical aggression were evaluated. Finally, a determination was made as to which instruments are available that will provide a reasonable profile of recruits' history of and potential for abusive behaviors.

Although there is a general consensus of opinion that abusive behaviors and their sequelae are a significant problem within the Navy it was thought prudent to first establish a factual basis for a survey of Navy personnel (i.e., a needs assessment). An examination of the Navy's cases of abusive behavior might also reveal unique factors that would influence the selection of survey designs and instruments. Therefore, the results of a study by Nice, Hilton, and Mattuecci (1991) will be reviewed. They obtained data from the Navy Family Advocacy Central Registry, which is maintained by the Navy Medical Data Services Center in Bethesda, Maryland. This registry contains all Child/Spouse Abuse Incident Reports (DD Form 2486) that are filed on U.S. Navy or Marine Corps personnel. Only substantiated incidents that occurred in 1989 among U.S. Navy personnel were included in the data. The population data for spouses and children of U.S. Navy personnel were acquired from the Defense Enrollment Eligibility Reporting System (DEERS). Nice et al. (1991) analyzed all substantiated cases of child abuse and spouse abuse among U.S. Navy personnel in calendar year 1989.

Computerized literature searches were conducted using the PsycLIT, MEDLINE, and DTIC databases. Manual searches were conducted when appropriate. A review of relevant literature and instruments was completed.

A 2-day workshop on research in the area of abusive behavior was conducted. The workshop included the discussion of and recommendations for psychometrically sound instruments used in studies of abusive behavior. Opinions of the workshop participants concerning relevant factors, variables, appropriate instruments, and study designs were recorded. Specific advice related to the use of instruments and methodology concerning preliminary (descriptive) and follow-up studies (longitudinal and treatment evaluation studies) was solicited. The overall goal was to create a methodologically sound design for a study that included recommendations for state-of-the-art instruments and procedures (Elliott & Merrill, in preparation).

Instruments that have been used in studies of child abuse, spouse abuse, and sexual aggression were evaluated for their temporal stability, validity, and appropriateness for use in future studies. Recognized experts in these fields were consulted to solicit current opinion on the status and direction of relevant research.

Results

A descriptive overview of the results of the Nice et al. (1991) Family Advocacy data analyses will be presented first. Next, a synopsis will be given of selected child physical and sexual abuse, sexual and nonsexual aggression against women, and spouse abuse models and theories of abuse, with their associated factors and characteristics. Lastly, recommended instruments will be described and tables of their psychometric properties will be presented.

Family Advocacy Program Data

The programs that have been established for the prevention, investigation, assessment, treatment, and follow-up of child abuse and neglect and spouse abuse, are, taken together, referred to as the Family Advocacy Program (FAP) (DoD 6400.1-M, 1992). During 1989 there were 5,561 substantiated cases of spouse abuse (18.3 per 1,000 couples) and 2,720 substantiated cases of child abuse (6.4 per 1,000 children) (Nice et al., 1991).

Child abuse. The results of the analysis of the FAP child abuse data indicated a sex-by-age interaction in which boys from birth through 6 years of age were more likely to be abused than boys from 7 to 17 years of age, $\chi^2(1, N = 2504) = 17.51, p < .00003$, but this age difference was not significant between the same age groups for girls (Table 1). However, among older children, females were more likely to be abused than males. This difference was due to older females being the victims in a higher number of cases of sexual abuse. Overall, adult males abused children significantly more than did adult females, $\chi^2(1, N=1105) = 4.46, p < .035$, (Table 2), and they abused older female children significantly more than older male children (Nice et al., 1991).

Table 1

Observed and Expected Cell Frequencies for Age of Victims of Child Abuse

Age	Frequency	Sex		
		Female	Male	Total
0-6 years	Observed	649	714	1363
	Expected	701	662	
7-17 years	Observed	639	502	1141
	Expected	587	554	
	Total	1288	1216	2504

Table 2

Observed and Expected Cell Frequencies for Sex of Perpetrators and Victims of Child Abuse

Perpetrator	Frequency	Victim		
		Female	Male	Total
Female	Observed	158	152	310
	Expected	174	136	
Male	Observed	461	334	795
	Expected	445	350	
	Total	619	486	1105

Spouse abuse. Nice et al. (1991) found that about 3% (30 per 1,000) of all Navy wives in the 18-to-24-year-old range are abused each year. This rate declines linearly with age until the ages of 45 to 65 when about .5% (5 per 1,000) of wives were abused in 1989. The rates of husband abuse are 4 per 1,000 for the 18-to-24-year-old age group and .6 per 1,000 for the 45-to-65 age group. The offender had consumed alcohol or drugs in about 30% of the cases. Victims were involved with alcohol or drugs in about 20% of the cases. Approximately 20% of spouse abusers had a previous record of spouse abuse, and 13% reported having been abused as a child.

Models, Theories, and Characteristics of Abuse

Models are important for the conceptualization of research, the development of treatment, and ideally they are used as the basis for the development of survey instruments. Compilations of models, theories, factors, and characteristics are presented as an overview of the different areas of abusive behavior and to allow for an understanding of the factors involved in the development of instruments to assess abusive behavior history and potential.

Child physical abuse. A comprehensive discussion of the models and theories of child physical abuse was compiled by Tzeng, Jackson, and Karlson (1991). However, Milner (in press) conveniently summarized the various models and theories of child physical abuse and partitioned them into six categories. The categories are Single Factor Models, Multifactor Organizational Models, Biological Models, Learning Models, and Interactional Models. This classification schemata generally follows a chronological pattern from 1962 to 1992 (Table 3). Beginning with Kempe et al.'s (1962) relatively simple unitary factor Psychiatric Model, the development of models and theories has become progressively more sophisticated as evidenced by Milner's (1992) multifactor interactional Social Information Processing Model. This increased sophistication appears to be attributable to the steady accumulation of empirical data.

The premise of recent models of child physical abuse is that multidomain, multilevel constructs must be formulated to adequately explain physical child abuse factors (Morton, Twentyman, & Azar, 1988; Milner, 1992). As can be seen in Table 3, models and theories have evolved from the Psychiatric Model, which attempted to explain child physical abuse using the single factor of pathology, to the Social Information Processing Model, which explained child physical abuse by means of automatic and controlled cognitive processes. The later models and theories are more complex and allow for multiple dimensions of environmental, sociological, familial, cultural, and cognitive explanatory factors.

The development of the models and theories included in Table 3 evolved over a period of 30 years. The early single-factor models relied upon a unitary explanation of abuse (Newberger & Newberger, 1982). These models were built from single factors, such as psychopathology or society. As empirical data were accrued, it became obvious that multiple factors and domains must be included in models for them to achieve an adequate explanation of abuse. During the 1970s and early 1980s, theorists began incorporating multiple factors into their models and theories. Belsky (1980) expanded the scope of previous models by including domains of factors in his Ecological Model. He stated that individual, family, and community factors must be considered if child abuse were to be understood. The next group of models built upon Belsky's contribution and added new dimensions to older constructs. Factors and domains in these models were perceived as dynamic or changeable; they could be defined differentially, depending upon their application and time course. Recent models have used the theories, models, and concepts of cognitive psychology to explain child physical abuse in terms of parental cognition.

Table 3

Chronological Listing of Physical Child Abuse Models and Theories

Model/Theory	Source
	1960s
Psychiatric Model	Kempe et al. (1962) (see Park & Collmer, 1975, for a review of the literature)
	1970s
Sociological Model	Gil (1970); Giovannoni & Billingsley (1970); Garbarino (1976)
Resource Theory	Goode (1971)
Three-Component Theory	Schneider et al. (1972)
Family Systems Theory	Straus (1973)
Social Psychological Theory	Gelles (1973)
Symbiosis Theory	Justice & Justice (1976)
Social Situational Model	Parke (1977)
Social Interaction Theory	Burgess (1979)
Choice Theory	Nye & McDonald (1979)
Culture Theory	Gelles & Strauss (1979)
	1980s
Ecological Model	Belsky (1980)
General Stress Theory	Farrington (1980), (1986)
Transactional Model	Cicchetti & Rizley (1981)
Three-Factor Theory	Lesnik-Oberstein et al. (1982)
Two-Factor Theory	Vasta (1982)
Cognitive Developmental Model	Newberger & Cook (1983)
Interactive Model	Ross & Ziegler (1983)
Situational Theory	Wiggins (1983)
Sociobiological Theory	Burgess & Garbarino (1983); Daly & Wilson (1981)
Cognitive Behavioral Model	Twentyman et al. (1984)
Encounter Theory	Zimrin (1984)
Coercion Theory	Stringer & LaGreca (1985)
Social Cognitive Model	Aber & Allen (1987); Egeland & Erickson (1987)
Social Systems Theory	Gil (1987)
Transitional Model	Wolfe (1987)
Neuropsychological Theory	Elliott (1988)
	1990s
Social Learning Theory	Tzeng, Jackson, & Karlson (1991)
Social Information Processing Model	Milner (1992)

Table 4 presents examples of characteristics that have been related to the physical abuse of children. These characteristics have been used as the basis for the development of questionnaires to assess or predict physical child abuse.

Table 4

Characteristics Related to Physical Child Abuse

Characteristic	Source
Perpetrator demographics: Non-biological parent; single parent; age; inadequate education; history of childhood abuse	Milner & Chilamkurti (1991); Herrenkol et al. (1984); Connelly & Straus (1992); Garbarino (1977); Meyer (1991)
Neurological/neuropsychological abnormalities	Elliott (1988); Milner & McCane (1991)
Physical health problems	Conger et al. (1979); Lahey et al. (1984)
Heightened physiological reactivity	Wolfe et al. (1983); Frodi & Lamb (1980); Crowe & Zeskind (1992)
Low self-esteem and ego strength	Friedrich & Wheeler (1982); Milner (1988)
Unusual perceptions, attributions, and evaluations of child behavior	Mash et al. (1983); Helfer et al. (1976); Bauer & Twentyman (1985); Reid et al. (1987)
Unrealistic expectations of child behavior	Kravitz & Driscoll (1983); Perry et al. (1983); Twentyman & Plotkin (1982)
High life stress/distress	Schellenbach et al. (1991); Straus (1980)
Depression	Gil (1970); Lahey et al. (1984)
Miscellaneous psychological factors	Aragon (1983); Mee (1983); Milner (1986); Steele (1987); Rivara et al. (1988)
Use of drugs and alcohol	Black & Mayer (1980); Leonard & Jacob (1988)
Social isolation	Milner (1992)
Dysfunctional parent-child interactions	Burgess & Conger (1978); Bousha & Twentyman; (1984); Kavanagh et al. (1988)
Parental disciplinary strategies	Lahey et al. (1984); Chilamkurti & Milner (1991); Kelley, Grace, & Elliott (1988)
Deficient coping strategies	Milner (1992)

Table 4 cont'd

Characteristic	Source
Conflict, little support in family of origin	Calisco & Milner (1992); Egeland et al. (1988)
Marital violence	Stets & Steinmetz (1987)
Family has poor communication skills	Mollerstrom et al. (1992)
Verbal conflict within the family	Mollerstrom et al. (1992)
Family values the use of force	Trickett & Susman (1988)
Family is socially isolated	Milner (1986); Gelles (1985)
Child factors (difficult child, disabled child)	Friedrich & Boriskin (1976)
Few resources; large number of children	Herrenkohl et al. (1984); Gabinet (1983)
Multiple stressors	Gabinet (1983); Gelles (1985)
Use of force is approved by culture	Smith (1991); Dobash & Dobash (1979)
Use of physical punishment	Coll, Hoffman, Van Houten, & Oh (1987)
Inadequate support systems	Dunst, Vance, & Cooper (1986)

Child sexual abuse. Table 5 lists models that have been developed to explain child sexual abuse. This compilation was summarized from Hall and Hirschman (1992). Two tables have been created to relate the similarities and differences between intrafamilial and extrafamilial abusers. However, many intrafamilial abusers are also extrafamilial abusers. Therefore, it should be remembered that abusers cannot necessarily be classified into mutually exclusive groups.

Table 5

Models of Child Sexual Abuse

Model and Premise	Source
Univariate Models	
Physiological	Freund & Blanchard (1989); Murphy, Haynes, Stalgaitis & Flanagan (1986); Quinsey & Chaplin (1988)
Cognitive	Pithers (1990); Pithers et al. (1988)
Premise of Models:	Child sexual abusers are aroused as much or more by pedophilic stimuli as by adult stimuli.
Cognitive-Behavioral	Pithers (1990)
Premise of Model:	Fantasies lead to overt behavior.
Multivariate Models	
Sociological	Finkelhor (1984)
Premise of Model:	When four qualifying conditions and at least one of the three criteria motivational factors are met, abuse will occur.
Population-Specific Multicausal	Bard (1987); Knight (1988); Knight, Rosenberg, & Schneider (1985)
Premise of Models:	Clinical evaluations of sexual and aggressive motivation will provide an accurate diagnosis. These models are complex, cumbersome, and often do not use standardized instruments. Therefore, they are difficult to test and impractical for clinical use.
Quadripartite Model	
	Hall & Hirschman (1992)
Premise of Model:	That abusers are heterogenous. Incorporates aspects of previous models that have shown that various combinations of physiological, cognitive, affective, and personality factors may be more or less prominent as motivational factors, depending on the topologies of the abuser and the event.

Tables 6 and 7 list some of the characteristics of intrafamilial and extrafamilial child sexual abuse perpetrators. Generally, it has been found that child physical and sexual abusers are similar in many respects. They both tend to have the same socioeconomic status and marital difficulties. They are impulsive, immature, dependent, and have a negative self-concept. Both groups have a comparatively high rate of alcoholism, and role reversals occur more often in their families. Although child physical abusers tend to be women, child sexual abusers tend to be men. Other differences exist in family interactions, sequelae of abusive incidents, and perceptions of the abused child (Milner, 1992).

Table 6

Characteristics of Intrafamilial Child Sexual Abuse Perpetrators

Characteristic	Source
Personality	
Dominant, authoritarian, controlling	Mrazek & Kempe (1981); Renshaw (1982)
Ineffectual, inadequate, passive, introverted	Renshaw (1982); USDHHS (1981)
Controlling within family and ineffective and inadequate outside of family	Herman & Hirschman (1981)
Impulsiveness	Gentry (1978); Kempe (1978); Summit & Kryso (1977)
Immaturity	Geiser (1979); Mrazek & Kempe (1981)
Loneliness, need for closeness	Burgess et al. (1978); Justice & Justice (1979)
Social withdrawal, hostility	Latimore (1981)
Rigidity	Nakashima & Zakus (1977)
Alcoholism	Spencer (1978); Virkunen (1974)
Low self-esteem	Geiser (1979); Gentry (1978); Renvozie (1982)
Family	
Sexual estrangement	Mrazek & Kempe (1981); Renvozie (1982)
Marital violence	Brooks (1981, 1982); Knudson (1981, 1982)
Role confusion/role reversal	Justice & Justice (1979); Spencer (1978)
Family dysfunction	Brooks (1982)
Isolation	Herman & Hirschman (1981); Renvozie (1982)
Fear of separation	Gutheil & Avery (1977); Lustig et al. (1966)
Overcrowding/poor housing	Maisch (1972); Mrazek (1980)
Absence of nonabusing parent	Maisch (1972); USDHHS (1981); Vander May & Neff (1982)
Miscellaneous	
Stressful environment	Gentry (1978); Mrazek (1980); Renvozie (1982)
History of abuse	Geiser (1979); Henderson (1980); Oliviera (1982)
History of childhood sexual experiences	Pelto (1981)
Incidents are heterosexual	Finkelhor (1979)

Milner (1992), summarizing the literature, stated that the intrafamilial child sexual abusers are socially withdrawn, lonely, impulsive, unhappy, suspicious males. Abusers have low self-esteem, live under a large amount of stress, tend to be antisocial, alcoholic, and psychopathic. The abuser probably comes from a family with poor relationships, in which he was physically and/or sexually abused and/or neglected as a child. As a father, he is controlling at home but passive and ineffectual in outside relationships. Role reversal between his spouse and children may be present.

Table 7

Characteristics of Extrafamilial Child Sexual Abuse Perpetrators

Characteristic	Source
Personality Characteristics	
Poor self-esteem	Rosen (1979)
Feelings of inferiority, need for dominance	Storr (1964)
Inadequacy, infantilism, maternal dependency	Lambert (1976); Stoller (1975)
Poor social skills	Mohr, Turner, & Jerry (1964); Pacht & Cowden (1974)
Loneliness	West (1977)
Passivity	Howells (1981)
Personality disturbance	Swanson (1968)
Antisocial tendencies	Howells (1981)
Anxiety concerning adult sex	Howells (1981)
Gender identity confusion	Bell & Hall (1976)
Miscellaneous Characteristics	
Loss of sex partner	Peters (1976); Groth & Birnbaum (1978);
Marital difficulties, unmarried	Swanson (1968)
Stress	Rosen (1979); Swanson (1968)
History of being sexually abused	Rosen (1979); Swanson (1968)
Exposure to child sexual abuse as a child	Rosen (1979); Swanson (1968)
Absent or hated father	Fraser (1976)
Sex with other children when a child	Frisbie (1969); Gillespie (1964); Howells (1981)
Comparatively less exposure to pornography	Frisbie (1969); Gillespie (1964); Howells (1981)
Sexually repressed	Frisbie (1969); Gillespie (1964); Howells (1981)
Sexually inhibited	Goldstein (1977)
Alcoholic	Peters (1976); Swanson (1968)

Milner (1992) described the extrafamilial child sexual abusers as passive, generally inadequate, narcissistic, and unhappy males who tend to be sexually repressed or inhibited, lonely, have low self-esteem, and have underdeveloped social skills. He may have been abused when he was a child and may have had poor relationships. The abuser may be an alcoholic, antisocial, and may exhibit symptoms of psychopathology.

Sexual and nonsexual aggression against women. There is a paucity of empirical research that specifically explores aggression against women in other than a family framework. Malamuth, Sockloskie, Koss, and Tanaka (1991) have developed a multifactorial model of aggression that incorporates factors found to be significant in other studies. Malamuth et al. (1991) suggest that sexual aggression against women results from high levels of hostile masculinity and sexual promiscuity (i.e., when men with higher levels of hostile masculinity engaged in promiscuous sex, the sex was more likely to be the result of coercion). The concept of hostile masculinity includes personality characteristics related to general coerciveness and specific hostile characteristics toward women. Nonsexual aggression also appears to result from hostile masculinity.

Table 8 lists the characteristics related to sexual and nonsexual aggression against women. The first six categories were adapted from Malamuth et al. (1991). Malamuth et al. tested their model with a group of college men (n = 2,652). Their model is an amalgamation of previous theories and research and is based on sophisticated methodology.

Table 8

Characteristics Related to Sexual and Nonsexual Aggression Against Women

Characteristic	Source
Home environment	Malamuth et al. (1991)
Parental violence	
Child abuse	
Delinquency	
Delinquent peers	
Runaway	
Sexual promiscuity	
Age of first intercourse	
Number of partners	
Social isolation	
Ability to make friends	
Closeness to women	
Maintenance of relationships	
Hostile masculinity	
Negative masculinity (general coerciveness)	
Hostility toward women	
Adversarial sexual beliefs	

Table 8 cont'd

Characteristic	Source
Attitudes supporting aggression Adversarial sexual beliefs Rape-myth acceptance Acceptance of violence	
Positive stress	Marshall & Rose (1990)
Spousal violence in family of origin	Breslin et al. (1990)
Lack of social support Forceful personality	Kashani & Shepperd (1990)

Spouse abuse. The study of spouse abuse typically has focused on women as victims. However, two controversial studies found that men were more often victims of spouse abuse (Straus et al., 1980; Steinmetz, 1978), but these studies neither measured the consequences nor the context of the violence. A few studies have suggested that women use violence as a protective device (Jones, 1980; Pleck et al., 1978). Clinical studies definitely show that women are victims of abuse much more often than are men. Straus (1980) studied the incidence rates of abuse and found that 25% of the men and 25% of the women were victims, and in 50% of the cases both were violent. Again, it should be remembered that consequences, context, and motivations were not measured in this study. The Navy FAP data clearly show that women are overwhelmingly the victims of spousal abuse.

Table 9 presents models of spouse abuse and family violence. Table 10 shows characteristics found to be correlated with spouse abuse. These, and other such tables, must be viewed with caution because much of the abuse research contains methodological flaws and often has studied only cases that have come to official attention ("caught cases").

Though it appears that women aggressing against men is not a serious problem, few studies have investigated this area. Marshall and Rose (1990) and Breslin et al. (1990) found that women were significantly more likely than men to repeat violent behaviors that had been inflicted on them as children. This suggests that the intergenerational transmission of violence may be much stronger in women than men.

Table 9

Models and Theories of Spouse Abuse

Model/Theory and Premise	Source
Family Systems Model Premise: Abuse is a product of the interrelatedness of events and family members.	Lawson (1989)
Cybernetic Model Premise: Suggests that the victim maintains and escalates abusive interactions.	Erchak (1984)
Feminist Perspective of Family Systems Models Not a model but an important criticism of an influential model. States that biases against women have compromised the integrity of the model.	Bograd (1986)
Animal Models Compares animal models of aggression with family violence. States that family violence may result from genetic influences, reduce stress, and is related to critical periods of development.	Eichelman (1985)
Familial Patriarchy States that the abuse of women is the result of social and economic processes that portray men as the dominant family figure. Men support each other in the maintenance of spouse abuse.	Dobash (1979); Smith (1991)
Intergenerational Transmission Exposure to spousal violence in the family of origin increases the likelihood of perpetration.	Cappell (1990)
Resource Theory Violence a family member employs is directly related to the amount of resources that are available to the member. Males use violence when they do not have, what they believe to be, their culturally dominant role in the family.	Goode (1971)
General Systems Theory Society is viewed as a system, and therefore, violence is a product of the system. Factors within the system determine whether individuals will act violently.	Straus (1973); Giles-Sims (1983)
Exchange Theory The payoff for using violence is greater than the cost. Society accepts family violence as a private matter, therefore the cost (intervention) is less than the rewards (e.g., domination).	Gelles (1973)
Economic Model Suggests that socioeconomic stressors (unemployment, illness) is responsible for violence.	Coser (1967); Gelles (1974)
Sociocultural Model States that violence is a cultural phenomenon inherent in the norms and attitudes of a society.	

Table 10

Characteristics Related to Spouse Abuse

Characteristic	Source
High levels of marital conflict Lower socioeconomic class Exposure to violent role models as a child	Sugarman & Hotaling (1989)
Alcoholism	Livingston (1986)
Exposure to violence in general as a child	Rouse (1984)
Familial patriarchy	Smith (1991)
Previous arrest Alcoholism Dysfunctional family of origin	Gondolf & Foster (1991)
Spousal violence in family of origin	Cappell (1990)
Lower social class	Lockart & White (1989)
Patriarchy and male domination	Dobash & Dobash (1979)
Intergenerational transmission Low socioeconomic status Social and structural stress Social isolation and low community embeddedness Low self-concept Personality problems and psychopathology	Gelles (1985)
Unemployment Low economic status Spouse is a manual laborer Worries about financial security Two or more children Disagreement over children Exposed to parental violence Married less than 10 years Age 30 or under Marital conflict Stress Verbal aggressiveness Alcohol consumption Lived in neighborhood less than 2 years No participation in organized religion	Straus, Gelles, & Steinmetz (1988)

The study of abusive behavior can be conceptualized as focusing on history of, and potential for abuse at the top level. The second level comprises the study of victims, perpetrators, and at-risk populations. The third level is composed of the various abusive behaviors (i.e., spouse abuse, child abuse, sexual aggression). A comprehensive descriptive survey of abusive behaviors, therefore, requires the use of instruments that will address these three levels. Each of the instruments selected for use in this study will supply unique data at one of the conceptual levels. Few instruments have well-documented psychometric properties that would be of value in screening for a history of and potential for abusive behavior (Milner, 1991). However, the following screening and assessment instruments have been found to have acceptable temporal stability and validity data and seem to be appropriate for screening large groups for base rate data (see Tables 11, 12, and 13 for a summary of psychometric data). The Child Abuse Potential inventory (CAP), Sexual Experiences Survey (SES), Trauma Symptom Checklist-40 (TSC-40), Conflict Tactics Scale (CTS), and the Michigan Alcoholism Screening Test (MAST) supply descriptive and inferential data that would allow for the creation of an abuse profile.

Child Abuse Potential Inventory. The Child Abuse Potential inventory (Milner & Wimberly, 1979) has been extensively tested, meticulously developed, and has impressive psychometric properties. The applications recommended for the CAP are parent screening, pre- and post-treatment evaluations, and it may be of some value in screening spouse abusers for concurrent child abuse (Milner, 1986; Milner & Gold, 1986). In addition, the CAP has been used by researchers to test childless adults, to differentiate known abusive parents from a comparison group, and to gather information related to construct validity. Although the instrument is inappropriate for identifying childless individuals for future abuse potential, it appears to be suitable for screening groups to gain base rate data. The CAP may also be suitable for screening childless individuals for marker variables wherein the purpose of the testing was well-stated and understood. Then CAP scores could be used to categorize individuals as being at risk (Milner & Ayoub, 1980). Although the CAP provides valuable information in many areas, generally, it was selected to provide data concerning physical child abuse potential.

Sexual Experience Survey. The Sexual Experiences Survey (SES; Koss & Oros, 1982) has good psychometric properties (Koss & Gidycz, 1985) and is used to screen groups for victims and perpetrators of sexual aggression. More than 10,000 college students have completed the survey. This instrument supplies data in the areas of history of and potential for sexually aggressive behavior and sexual abuse history for perpetrators and victims. An expanded version of the SES was developed to survey more than 5,000 college men and women concerning sexual victimization and aggression (Koss & Dinero, 1989; Malamuth, Sockloskie, Koss, & Tanaka, 1991). The SES appears to have the ability to discriminate victims and abusers of sexual aggression along a continuum from verbal coercion and threatened force through the use of physical force. There are male and female versions of the SES.

Trauma Symptom Checklist-40. The Trauma Symptom Checklist (TSC-40, Elliott & Briere, 1992) was designed to gauge child sexual abuse effects with regard to symptomatology. The TSC-40 has reasonable temporal stability and validity. Although the TSC-40 was developed to assess the effects of sexual abuse, scores on the TSC-40 also increase in the presence of physical abuse. The SES and the TSC-40 together are capable of providing data on the occurrence of abusive events and the severity of the effects or symptoms of victimization. The TSC-40 contains 40 items that are answered on a scale from zero ("never") to three ("often").

Conflict Tactics Scales. The Conflict Tactics Scales (CTS) were developed by Straus (Straus, Gelles, & Steinmetz, 1981) to "measure violence in the family by asking about the means used to resolve conflicts of interest among family members" (p. 26). The CTS, therefore, may be used to sample for incidence of spousal abuse, as well as other forms of intrafamily violence. The CTS supplies data related to history of abusive behavior in dating and marital (significant other) relationships. A version of the CTS has also been used to collect data related to physical abuse history.

Michigan Alcoholism Screening Test. Selzer (1971) designed the Michigan Alcoholism Screening Test (MAST) to collect information related to the consumption of alcohol. The MAST has been shown to have superior temporal stability and validity relative to similar instruments (Mischke & Venneri, 1986). The MAST has been shown to be an excellent indicator of alcohol-related dysfunctional behaviors. Alcohol use has been associated with all types of abuse (Taylor & Leonard, 1983). The excessive use of alcohol has been implicated in the perpetration of abusive behavior and victims of abuse are believed to have higher rates of alcohol abuse (Daro & McCurdy, 1991; Gelles, 1985). The MAST may be used to screen groups for alcohol-related dysfunction (Tulevski, 1989). The MAST contains 25 items that are answered either "yes" or "no." A brief version of the MAST, which contains 10 items, has been tested and appears to be as effective as the complete MAST (Pokorny, Miller, & Kaplan, 1972).

Table 11

Completion Time and Cost of Instruments

Measure	Completion Time (min)	Cost Per Subject
Child Abuse Potential Inventory	15 - 20	\$0.85
Conflict Tactics Scale	10 - 15	0
Trauma Symptom Checklist	10 - 15	0
Sexual Experiences Survey	10 - 15	0
Michigan Alcoholism Screening Test	10 - 15	0

Table 12

Reliability of Instruments

Measure	Internal Consistency		Temporal Reliability	
	Alpha Correlation			
Child Abuse Potential Inventory	Controls	.92 - .96	1 Day	.91
	Abusers	.95 - .98	3 Months	.75
Conflict Tactics Scale	Husband-to-Wife	.83	Not Available	
	Wife-to-Husband	.82		
Trauma Symptom Checklist	Overall	.90	Not Available	
Sexual Experiences Survey	Women	.74	One Week	.93
	Men	.89		
Michigan Alcoholism Screening Test	Overall	.85 - .88	Variable Times	.84

Table 13

Validity of Instruments

Measure	Predictive Validity		
	Concurrent	Future	
Child Abuse Potential Inventory	.71 - .83 (Lambda)	.34 (Omega ²)	
Conflicts Tactics Scale	Spouse Abuse	.70	Not Available
	Child Abuse	.48	
Trauma Symptom Checklist	Not Available	Not Available	
Sexual Experiences Survey	Women	.73	Not Available
	Men	.61	
Michigan Alcoholism Screening Test	Overall	.65	Not Available

The CAP, SES, TSC-40, MAST, and CTS all have acceptable psychometric properties and are capable of providing unique data that, analyzed together and individually, will generate a comprehensive profile of abusive behavior. These instruments provide data that address different facets of abusive behavior; together, they provide for a thorough investigation of the field. Additionally, these instruments will provide an estimate of the number of actual (self-report) and potential number of perpetrators of child abuse, spouse abuse, and sexual aggression. Due to low base rates, data from a large sample must be collected.

Other instruments are being developed that may eventually be of value in the assessment of abusive behavior. For example, Finkelhor and Williams (1989) are developing a scale that may aid in the prediction of child molestation.

Discussion

The reported incidence of child and spouse abuse in the Navy is lower than that in the civilian community. In a nationwide survey of state Child Protective Service agencies, Daro and McCurdy (1991) found an average of about 16 cases of substantiated child abuse per 1,000 U.S. children. FAP substantiation rate is 6.4 per 1,000 children. This comparison, however, may be misleading in that many Navy cases are treated by civilian agencies and, therefore, do not come to the attention of FAP (Banks, 1985; Doucette, 1980). The FAP data indicate that there are 50 cases of substantiated spouse abuse per 1,000 wives and about 10 cases of substantiated spouse abuse per 1,000 husbands. Straus and Gelles (1990), who used the CTS to survey 8,145 families, found that one out of six U.S. couples reported an incident involving a physical assault, this would be a rate of 161 per 1,000 couples. The reported assaults ranged from pushing, slapping, shoving, and throwing things to kicking, punching, biting, or choking. Straus and Gelles (1990) have compiled a list of 55 studies that have gathered base rates for marital violence and the reports range from 25 to 740 per 1,000 couples. They summarized the results of 16 studies that reported parent-to-child rates of abuse and reported ranges from 88 to 908-per-1,000 children. The studies reporting these rates must be individually examined because the 88-per-1,000 rate was for Quaker families (low risk) and the 908 per 1,000 was for the children of battered women (high risk). Straus and Gelles (1990) report that the results of their survey showed that more than 100 per 1,000 children are assaulted in a manner that is considered abusive. The Straus and Gelles rates are not substantiated rates, they are self-reported rates. Underreporting of cases of abuse is a serious concern of civilian and military agencies. Although data related to underreporting is extremely difficult to gather, Koss (1990) estimates that less than 10% of child sexual abuse and adult sexual assault cases are reported to police. Applying this estimate of unreported abuse to reported rates of child and spouse physical abuse would result in Straus and Gelles' (1990) data closely approximating the actual number of abusive incidents.

An examination of the FAP data indicates that spouses in the 18-24-year-old age group and younger children are at higher risk of being abused. This indicates that it would be reasonable to target younger Navy members for potential prevention initiatives, especially those who have high-risk factors associated with the perpetration of abuse. The high-risk factors found in the FAP data are a history of spouse abuse, the use of alcohol, and a history of being abused as a child. However, these high-risk factors may not be predictive of abusive behavior in the population due to the low level of reported incidence of abuse. The FAP data also revealed that

older female children are more often the victims of sexual abuse. Immediate preventive initiatives may be most profitable when applied to this age group but future initiatives may gain long-term benefit when applied to younger children and their parents. However, studies need to be conducted that would gauge the history of and potential for abusive behaviors in young Navy members. Such studies would provide a more accurate basis for the creation of prevention, treatment, and education programs.

Although a formal study has not been conducted that concerns the incidence of sexual aggression involving naval personnel, recent media reports indicate that it may be a serious problem (e.g., "Tailhook," 1992). Merrill and Pearsall (1992) found that FAP caseworkers are overburdened by the large number of cases involving physical and sexual abuse.

Within the Navy, the administrative, investigative, and treatment costs for perpetrators and victims of abuse appear to be significant. However, the exact costs are difficult to determine. Some of the cost of maintaining the FAP sites, Family Service Centers (FSCs), psychological and psychiatric services, central registry, and command and administration must be taken into consideration. Although they studied a civilian population, Marshall et al. (1991) found that the cost of investigating, prosecuting, and incarcerating a single sexual offender, plus the cost of assessing and treating his/her victim is \$200,000. They state that the projected savings gained by treating a molester is \$68,000. Although most child abusers (physical and sexual) and spouse abusers are not incarcerated, there is general agreement that the treatment of abusers and victims is cost-effective. Obviously, if potential perpetrators could be identified and treated prior to committing offenses and if potential victims could be identified and monitored/educated, the savings, in terms of human suffering and money, would be even greater (Becker & Hunter, 1992).

A critical problem encountered when attempting to screen for abuse victims, perpetrators, those at risk of becoming victims, and those at risk of abusing is the scarcity of psychometrically sound instruments. Although the Health and Psychosocial Instruments (HAPI) database contains more than 12,000 entries, psychometric data are not available for the majority of the instruments (E. Perloff, personal communication, October 7, 1992). Most instruments that have been used in the assessment and prediction of abusive behavior have been developed for in-house or one-time use and therefore have not undergone rigorous psychometric evaluation to establish their reliability and validity (Briere, 1992; Elliott & Merrill, in preparation). Consequently, the data collected by studies that have used untested instruments are difficult to evaluate and analyze. Although valuable data have been collected by studies that have used such instruments, it is often impossible to categorize important elements identified by these studies as marker, causal, predictive, or correlational variables and factors (Briere, 1992). For example, a popular belief, which is promoted by some of the child-abuse literature, is that a "cycle of abuse" exists (i.e., the belief that victims of abuse are more likely to abuse their children). This belief has been fueled by the media and by the results of methodologically flawed studies that have overestimated the relationship between history of abuse and future abuse potential. Research indicates that about 30% of individuals who have a history of abuse subsequently abuse their children (Milner, Robertson, & Rogers, 1990; Kaufman & Zigler, 1989). The analysis of FAP child physical abuse cases found that about 10% of the perpetrators reported a history of abuse. Similar methodological problems can also be found within the child sexual abuse and spouse abuse literature (Briere, 1992). In a review of 18 different studies that involved 1,717 child-

sexual abuse perpetrators, Hanson and Slater (1988) found that approximately 28% of the offenders had a self-report history of abuse. Hindman (1988) investigated the accuracy of perpetrators' self-reports. She found that prior to being told that they would be given a polygraph (lie-detector test), 67% of the perpetrators in her study stated that they had a childhood history of abuse. After being exposed to the polygraph, only 21% reported a childhood history of abuse. Clearly, the bulk of current research indicates that the majority of adults who were abused as children do not become abusers. Childhood physical and sexual abuse, however, does appear to cause trauma, which can contribute to the development of dysfunctional behaviors and psychopathology in adult life and therefore should be treated as early as possible (Bremmer et al., 1992; Cicchetti, 1989; Galdston, 1975; Gelardo & Sanford, 1987; Milner & Crouch, in press; Smith, Hanson, & Nobel, 1973).

Ideally, causal variables and factors, not marker or correlational variables and factors, should be used as the basis for designing treatment and prevention programs. Numerous correlational variables and factors have been found and used to characterize abuse perpetrators (Milner & Chilamkurti, 1991; Murphy & Peters, 1992). For example, many studies have found that child sexual abusers are mostly male, withdrawn, lonely, impulsive, passive, stressed, antisocial, alcoholic, have low self-esteem, and exhibit more psychopathology than comparison subjects. They may have been sexually and/or physically abused as children and usually come from families with poor relationships (Milner, 1992). These marker and correlational variables may be valuable diagnostic aids but are not necessarily useful for designing treatments. An explanation of this phenomenon may be understood by drawing a parallel with a marker that aids in the diagnosis of heart disease. A crease in the earlobe is known to be a marker for heart disease. Individuals with such a crease have been shown to have a fourfold incidence of heart disease. The removal of the crease, however, does not treat heart disease or lessen the risk of developing heart disease. Similarly, alcoholism may be one useful factor for predicting who may abuse, but perpetrators who successfully complete alcoholism treatment programs will not necessarily stop abusing. Optimally, causal and predictor variables and factors are identified by means of longitudinal studies. To date, no such studies have been done (Briere, 1992). The use of methodologies in studies that employ longitudinal or cross-sectional designs is problematic because the protection of confidentiality and client rights conflict with legal and ethical obligations.

The use of marker/diagnostic variables to identify or predict individuals who are, or who may become victims, perpetrators, or at risk can result in misidentification (i.e., false positives). However, false positives can be screened out in a multistage assessment process. Individuals who appear to be positives could be evaluated further via a multistage process to gather other forms of data. In such a multistage process, instrumental screening is used as a practical and convenient method for identifying individuals who may profit from further assessment.

Research concerning abuse has moved from focusing on perpetrators to victims (Elliott & Merrill, in preparation). The immediate and long-term effects of child sexual abuse (upon victims) have been documented (e.g., Elliott & Briere, 1991; Conte, 1992). Generally, early trauma, whether physical or sexual, has been associated with varying degrees of adult dysfunctional behavior and psychopathology (e.g., Bryer, Nelson, & Miller, & Krol, 1987; Burnman et al., 1988; Green, 1987; Herman, Perry, van der Kolk, 1989; Kirpatrick et al., 1987; Ogata et al., 1990). Female victims of childhood abuse have been found to suffer a higher

incidence of rape as adults (Russell, 1984; Miller et al., 1978). Further, White (1992) has suggested that teenage victims of sexual assault may be more vulnerable to subsequent sexual assaults than women who have not been previously assaulted. Of particular relevance to military personnel is the finding that early physical abuse may be an antecedent to the development of Post-traumatic Stress Disorder (PTSD) in combat veterans (Bremmer et al., 1992). Bremmer et al. suggests that in combat veterans presenting with PTSD symptoms, the symptoms may be secondary to combat trauma and primarily the result of noncombat sources of trauma, such as childhood abuse. Taken together, it appears that untreated trauma due to sexual and/or physical abuse, whether received as a child or an adult, may demand treatment at a later date, may be associated with later developing disorders (e.g., PTSD) and/or vulnerability to revictimization. Perpetrators who are not identified and treated will probably repeat their offense and thereby create more victims.

As has been found in the medical community and is increasingly being understood in the social and psychological services, prevention and early intervention are the optimal methods for avoiding human suffering and gaining the greatest long-range cost benefit (Becker & Hunter, 1992; Daro & McCurdy, 1991). For example, since 1985 the state of Hawaii has been screening and assessing the parents of newborns to identify those at high risk of abusing their children. Home care, preventive health care, and monitoring of the at-risk children is provided until they enter kindergarten (Daro & McCurdy, 1991).

This report provides recommendations for instruments that will allow for a comprehensive survey of the history of and the potential for abusive behavior among U.S. Navy recruits. The instruments were selected based on their temporal stability, validity, and potential for providing correlational variables and factors related to abusive behaviors. These instruments will allow a thorough survey of various subgroups and categories of variables related to abusive behaviors. The use of the suggested instruments will yield data that may aid in the development of educational and treatment programs for victims, individuals at risk for becoming victims and perpetrators of abusive behavior.

The institution of intervention programs at the recruit level would improve the operational efficiency of the Navy and Marine Corps through the treatment of dysfunctional symptomatology. Abuse and its sequelae have a detrimental effect upon work performance and retention of Navy members. After a survey is done to collect descriptive data, other efforts should include: (a) a follow-up of the survey of Navy recruits; (b) a longitudinal study that would trace the etiology of abuse and validate the use of assessment and predictive instruments; (c) studies that would formulate and evaluate prevention and treatment programs based on state-of-the-art empirical research; (d) studies to evaluate pre and post-treatment effectiveness; (e) studies to identify the relationship between organizational stressors (e.g., family separation/reunion, geographic mobility) that may contribute to child or spouse abuse; and (f) studies that measure the context, consequences, and motivation of abuse.

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13. ABSTRACT (Maximum 200 words) The purpose of this project was to review the literature, consult with experts, and evaluate the instruments related to the assessment of exposure to child abuse, spouse abuse, and sexual/physical aggression to provide a scientific basis for a study to survey Navy recruits for their history of and potential for abusive behaviors. The major objective was to determine whether psychometrically valid instruments are available that would provide data to aid in the creation of abuse prevention and treatment programs. Two aims of this project were to compile a referenced listing of factors that have been found to be associated with abusive behavior and to ascertain the reliability, validity, and appropriateness for use of relevant instruments.				
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