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Rates of premature first-term attrition approach 50% among women Marines. We propose that adjustment to first term enlistment among women and men in the US Marine Corps (USMC) will be associated with distal factors (i.e., psychiatric histories, exposure to childhood stressors), proximal factors (i.e., task and socioemotional characteristics of the military setting) and their interaction. Further, gender differences in adjustment will be partially accounted for by gender differences in rates of exposure to certain distal and proximal events. This prospective, longitudinal study will assess female and male USMC recruits throughout the initial 18 months of their first-term enlistment. Distal factors and baseline mental and physical well being will be measured at the recruit depot. Proximal factors, occupational outcomes, and mental and physical well being will be assessed at the end of basic training, and at 9 and 18 months. This investigation will inform policy makers and clinicians concerned with improving retention in the USMC and optimizing both women's and men's performance and adaptation. The current report details the rational for this study and describes its experimental design as well as the status of the project to date.

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FOREWORD

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Jessica A Wolfe 10-9-97

PI - Signature Date

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INTRODUCTION

Background and Significance

Women currently comprise nearly 14% of the active duty U.S. Armed Forces, and this rate is expected to grow as more women enlist in all branches of service, including the U. S. Marine Corps (USMC).[1] This change in the military workforce has required considerable attention to the needs of women.[1] The Marine Corps conceivably represents the most difficult service environment for women, with a strong male-oriented culture and the fewest women of all the service branches. Despite efforts of the USMC to adapt to its more diverse workforce, problems with first-term retention have been widely observed for females, with rates of attrition approaching 50%[2]. In comparison, rates of first term attrition for males range from 29-35%[3].

The Department of Defense incurs economic and personnel losses when recruits leave before the conclusion of the enlistment tour. In addition, separation from the military can impact the individual financially, occupationally, and emotionally. This project is designed to develop a model of how past life experiences are associated with the adjustment of female and male enlistees in the USMC, specifically, their successful adaptation and completion of the first-term of enlistment. The foundation of this project is based on variants of the *diathesis-stress model* which postulates that individuals enter settings (i.e., military service) with a wide range of behavioral, psychosocial, and familial characteristics. These characteristics, which may differ for women and men, constitute both strengths and vulnerabilities (diatheses), each of whose expression or effect is strongly influenced by the experiential context. Current data suggest that active duty personnel enter military service with a range of strengths and vulnerabilities (e.g., psychiatric and socio-sexual histories[4]). We propose that preexisting vulnerabilities *(distal events)* interact with specific characteristics of the work setting *(proximal events)* to facilitate or inhibit positive adjustment to military enlistment. In this study, we systematically examine how both pre-military and military experiences culminate in differing levels of well-being and performance-based accomplishments (e.g., retention, promotion, skill advancement) for female and male enlistees during the first term of service. These data will inform military personnel, behavioral scientists, and health practitioners about the well-being of recruits and factors associated with the maintenance or enhancement of optimal behavioral and vocational outcomes in female Marine Corps enlistees, including attrition during the first-term of enlistment.

Overview of Related Findings

This section reviews three pertinent areas of inquiry. We first review descriptive data on current rates of women's attrition in the Armed Forces, in particular, the USMC, and discusses factors that are likely to be related to

retention and attrition patterns. We then review relevant distal life events and background characteristics associated with developmental and behavioral outcomes in adults, especially, women. We conclude with a review of pertinent, proximal factors associated with adult success in the workplace (e.g., task demand, social support) and discuss how interactions between distal events and proximal workplace characteristics are likely to relate to work adaptation and specific occupational outcomes in the military.

I. Correlates of Women's Retention and Attrition in the USMC.

Recent data show that women's attrition is approximately 1.5 times that of men's in the Marine Corps during the first term of service[2], a rate that is unacceptably high[4, 2]. Also, women's separation from the USMC tends to occur much earlier than men's, with between 20-50% of all female attrition occurring before the end of basic training. On the other hand, women who complete the first-term enlistment are less likely than men to attrite.

To date, most existing research on attrition among female Marines has focused on demographic characteristics (e.g., age). Few researchers have examined other personal characteristics and social-occupational factors that are likely to affect enlistment success. In one study, Royle[5] evaluated women Marines in the 9-36 month period of enlistment who attrited *before* the conclusion of their first term, and also followed a sample of women on active duty service between 9-24 months, a portion of whom later left prematurely. Comparisons between non-attritees (n=423), pregnant attritees (n=109), and women who attrited for other reasons (n=41) showed that women who left the military because of pregnancy were more likely to be married and hold traditional family roles and views. In contrast, women who left for other reasons (i.e., not pregnancy) were more likely to demonstrate distinct personality and behavioral characteristics such as an external locus of control (traditionally associated with lower levels of personal mastery and self-esteem) and less mature coping strategies than non-attritees. In addition, non-pregnant female attritees described themselves as more uncomfortable and less accepted *as women* in military work groups.

Data from numerous civilian occupational settings shows that an organizational focus on positive interpersonal factors (e.g., team orientation and respect for people) is associated with better employee retention.[6] Research in military samples corroborates these findings. For example, in a naval study, "organizational climate," a broad construct involving organizational trust, helpfulness, clear communication, and fairness in reward distribution, significantly discriminated male naval officers who remained on the job from those who left.[7] In addition, those who stayed were more likely than those who left to report a positive climate in their units. Findings on Marine Corps women whose length of service was between nine and 36 months indicated that women were less likely to attrite if they perceived their work group as cohesive, supportive, and nonpunitive.[5]

Similarly, female Marines who reported higher quality social relationships - - including relationships within their barracks and other Marine Corps friends - - were substantially less likely to demonstrate mental and physical health symptoms. [5]

In many instances, organizational composition is related to abusive behaviors based on group membership. Generally, sexual harassment is far more prevalent in organizations where the gender ratio of men to women is high.[8] Given the current gender composition of the Armed Forces, and in particular, the overwhelmingly male USMC (95% male), it is possible that women in these settings are at substantially increased risk for sexual harassment or similar averse gender-related events. Survey data from a number of samples preliminarily support this possibility and suggest that sexual harassment experiences may be critical elements in women's initial adaptation to military life[9,10].

II. The Role of Developmental and Psychosocial Background on Adult Outcomes.

Research demonstrates that adults who have been sexually or physically abused as children are at substantially greater risk for the development or manifestation of psychopathology in adulthood.[11,12] Early abuse has been associated with a variety of negative outcomes including severely disturbed self-image and self-esteem, impaired trust, disrupted interpersonal relationships, behavioral impulsivity, dissociative symptoms, suicidality, and self-destructive or aggressive behavior.[11, 13] In terms of diagnosis, post-traumatic stress disorder (PTSD) is one of the most frequent outcomes.[14] This disorder has been widely associated with co-morbid conditions that independently or conjointly substantially impact vocational, social, and personal adjustment (e.g., clinical depression[15], antisocial personality,[16] alcohol and drug use,[17] and legal infractions and incarceration).[18,19]

Recent research in military populations suggests that rates of childhood trauma, particularly physical and sexual abuse, are elevated in active duty military personnel, apparently at levels that substantially exceed civilian rates. [20,4,12] Rosen and Martin[4] determined that as many as 58% of female and 35% of male active duty personnel in one sample reported experiences of childhood sexual or physical abuse. To date, very little longitudinal research has been conducted that examines the long-range consequences or military performance implications of such experiences. In one sample of 25 basic military trainees who were discharged for general mental health reasons, 40% reported experiencing childhood physical and/or sexual abuse.[21] This figure compares to a rate of 4% in a comparison group of 25 successful military trainees. Thus, certain background factors appear to play a role in military adaptation.

Additional research suggests that individuals with prior stressor backgrounds are at significantly greater risk for poorer adaptation following deployment or war-time exposure.[22,23,24] These findings confirm earlier civilian studies showing a robust association between early stressor exposure and subsequent stressor vulnerability.[25,26] This finding may extend in particular to women: Engel et al.,[27] for example, demonstrated that female Gulf War soldiers with histories of early sexual abuse were at significantly increased risk for developing *war-related* PTSD following military deployment although the mechanisms underlying this were not well specified. Anecdotal reports provided by USMC drill instructors to the principal investigator of the proposed study suggest that some characteristics of Marine Corps recruit training may reactivate prior stress reactions.[28,20]

Other data suggest that demographic features, for example, enlistment age, constitute a latent risk factor for predicting functional outcomes during the first-term enlistment. Considerable psychiatric data show that susceptibility for the onset of a number of pronounced and debilitating psychiatric disorders (e.g., major depression) occurs during the late teens and early 20's. In many cases, expression of these disorders appears partly contingent upon exposure to external stressors.[29,30] It is not known to what degree underlying susceptibilities to major psychiatric or developmental problems are exacerbated by stresses encountered during military training and the first-term enlistment, nor whether women are at increased risk for these problems in certain settings given their relative risk for certain psychiatric diagnostic disorders (e.g., major depression).[31] Accordingly, this study recognizes that even brief assessment of psychosocial, developmental, and family psychiatric histories are needed to better evaluate the potential contribution of these factors to individual outcomes.

Although much is known about the association of early psychiatric risk factors and childhood trauma with negative outcomes, little is known about the factors linked to positive adjustment in those who experience these events. For example, childhood sexual abuse rates as high as 50% have been reported for some female military cohorts.[4] Yet, many female recruits with these pre-military experiences adjust well to enlistment. To date, there are few data identifying the rates at which optimal adjustment occurs nor the factors that predict or mediate such outcomes. This information is critical for promoting and enhancing individual capabilities and contextual (e.g., workplace) factors that are directly associated with positive military adjustment. One example of such a mediator is social support, which has been widely found to buffer sequelae of traumatic stressors or exposure to stress in a large variety of populations.[32,33,34] Accordingly, examination of this and related variables is likely to aid in developing more precise models of optimal recruit adjustment.

III. Occupational Setting and Adjustment: Civilian and Military Considerations.

Extant research increasingly demonstrates that there are pronounced effects of military service on functional status across the lifespan.[35,36] These effects appear to stem from a combination of positive and negative factors. Positive effects of military service include lower rates of mortality (at least through mid-life), gains in maturity, self-discipline, and self-esteem, and greater functional independence (vocational, social, financial). Negative aspects include demonstrable increases in rates of physical complaints, medical problems associated with prisoner-of-war status or extreme environmental deprivation and the development of psychiatric disorders,[37] and delays in psychosocial achievements or developmental milestones (e.g., marriage, education).[36] Other negative outcomes (e.g., post-traumatic stress disorder) that have been associated with military service or deployment are highly predictive of later additional problems, for example, substance abuse, violence or vocational instability, suggesting that the adverse effects of military service have far reaching implications when untreated or resolved.

Despite evidence for its existence, the relationship between distal stressor and traumatic events, psychopathology, and successful adaptation to active duty service is poorly understood. The limited research currently available describes data from older male veterans, with little or no information on younger cohorts or women. In addition, there is little research on the immediate or initial effects of military enlistment. This is surprising, given considerable evidence that contextual factors, in particular, aspects of the military work setting and the larger military community, interact with earlier experiences to strongly influence longer range adaptation and adjustment. Extrapolating from this research, two broad aspects of military service can be expected to significantly impact initial duty service: a) individual *military occupational (job) characteristics*, and b) *socioemotional features* associated with the job setting and the broader military community. In describing literature on each of these factors, we emphasize primarily job and socioemotional characteristics since, for first-term enlistees, contact with the larger community is likely to be limited.

Psychological characteristics of occupational roles have been shown to be linked to a range of mental and physical wellness outcomes.[38] Two variables in particular - *psychological demands* and *control* - appear to be intrinsically related to well-being. *Psychological demand* is defined as the extent and rate at which an individual is required to allocate and mobilize personal psychological resources (attention, concentration, complex decision making) to successfully complete the job task. Women and men in highly demanding occupations typically report significantly more health complaints, poorer health behaviors (e.g., higher rates of smoking),[39] and greater risk for cardiovascular disease and mortality[39,40] than comparable individuals in low demand positions. Other research shows, however, that associations between

psychological demand and well-being are influenced by the amount of control an employee maintains over his/her job.[41] *Control* is defined as an individual's latitude in making decisions about critical job elements, including when, where, and how to execute important occupational tasks. Research on this factor demonstrates that individuals employed in occupations with high psychological demand but low control reliably report lower levels of mental and physical well-being as well as more impaired role functioning.[42] Thus, there is strong scientific evidence suggesting that decision latitude is a stress moderating factor related to reduced health and psychological risks, even within demanding occupations.

Active duty military service presents new recruits with a number of unique occupational challenges that may involve extreme psychological demands and that tend to vary in their controllability. These include: a) experiences that are routine in training (e.g., exposure to unfamiliar equipment, tools, and protective gear), and b) contact with technical and cognitively demanding elements of occupations during advanced military training.[1] Compared to many civilian occupations, active duty military service also presents new recruits with extensive *physical* and *psychological* challenges, including the mobilization of new physical resources (e.g., strength, stamina) and mental abilities (e.g., sustained concentration) to successfully complete tasks at hand. Thus, whether for training, peacekeeping, or combat missions, enlistees will likely experience a combination of intense physical and psychological demands as they enter novel and often dangerous settings.[1] Documentation of these characteristics is likely to be valuable for delineating patterns of adaptation and adjustment.[43]

Socioemotional characteristics of the workplace are defined as: a) the emotional quality ascribed to the individual's social relationships within a community, including variations in interpersonal conflict and support and variations based on group-membership (e.g., gender or ethnic discrimination) and b) the composition of a community or organization, in this case the military community, with regard to broad sociological categories (e.g., class, gender, ethnicity). Both emotional quality and composition of the military community are likely to be related to recruits' adaptation to the first-term enlistment and active duty service. Research with civilian samples has identified two dimensions related to the emotional quality of social relationships that are powerfully associated with mental and physical well-being: *social support* and *interpersonal conflict.* Investigations show that individuals with close or intimate social ties who have others to listen, talk with, and provide understanding are at markedly lower risk for physical and mental health problems than those with fewer interpersonal resources.[38] On the other hand, social relationships that are conflictual are likely to impair well-being, even to a greater extent than the beneficial effects afforded by positive support.[44]

Two other contextual factors - *discrimination and harassment* - are also strongly associated with performance outcomes in women and men. These workplace factors can be distinguished from *support* and *conflict* because they are specifically directed at individuals *based on group membership characteristics* (e.g., gender, ethnicity, sexual orientation). Recent studies of discrimination (defined as being unfairly treated and made to feel inferior because of one's gender or ethnicity) and sexual harassment (encompassing a variety of specific behaviors ranging from behaviorally-based gender harassment to actual or attempted rape or assault)[45] in civilians have shown that these experiences are significantly associated with self-reported physical and psychological symptomatology.[46] Furthermore, sexual harassment events have been empirically linked to a number of sequelae ranging from mild stress to clinical depression, fear, anxiety, and somatization disorders.[46,47] These effects are not restricted to psychological well-being: sexual harassment of civilian women has been linked to workplace behaviors that include absenteeism, tardiness, decreased participation in meetings, substance use, contemplation of job turnover, and actual attrition.[48] In combination, these findings suggest that it is critical to obtain assessments of a variety of socioemotional characteristics including those which are specific to group membership (i.e., discrimination and harassment) and those that are not (i.e., workplace conflict and tension).

Specific Aims

Data and anecdotal reports indicate that Marine Corps recruits are likely to face considerable psychological and physical challenges that vary widely in their degree of controllability. Like most organizations, Marine Corps recruitment and training experiences reflect varying levels of social support and interpersonal conflict. Unique to the Marine Corps, workplace characteristics associated with the USMC's distinctive gender composition may make particular experiences tied to group membership (i.e., harassment, discrimination) especially prevalent, even when leadership actively discourages this behavior. Based on the considerable research reviewed, this study posits that the contextual factors described will be associated with psychological, physical, and vocational outcomes of female Marine recruits. Furthermore, contextual factors are likely to interact with individual vulnerabilities, resulting in notably poorer adaptation among recruits with past histories of psychopathology and abuse. This interaction may be most robust in cases where contextual factors are reminiscent of the individual's early stressor experiences (e.g., perceptions of discrimination, conflict, criticism, and lack of respect).

Hypothesis 1. Past psychiatric and childhood abuse histories will differ for women and men, for example, higher childhood sexual abuse, depressive symptomatology among women and higher physical abuse and substance abuse among men.

Hypothesis 2. Particular socioemotional characteristics of the Marine Corps workplace (i.e., social support, conflict among colleagues) will differ for women and men (e.g., men will have greater access to work-related social support than will women).

Hypothesis 3. When individuals with the childhood exposures described above are in a military workplace characterized by a lack of social support and high conflict among colleagues, they will experience significantly higher attrition and poorer mental and physical health status and job performance (subsequently called *outcomes*) than will individuals without these vulnerabilities. Gender differences in outcomes (e.g., differences in attrition) will be accounted for by gender differences in the rates of exposure to particular childhood vulnerabilities and workplace characteristics.

Hypothesis 4. Other characteristics associated with the military workplace (e.g., high job demand and low control) will predict significantly poorer outcomes for women and men, regardless of preexisting vulnerabilities.

Hypothesis 5. Rates of exposure to certain noxious socioemotional experiences during enlistment, for example, discrimination and sexual harassment, will be higher for women than men and will result in poorer outcomes among women, regardless of preexisting vulnerabilities.

Research Design and Methodology

This study uses a cohort design in which we relate past *(distal)* events obtained retrospectively and current *proximal* events (i.e., military experiences) obtained through questionnaires to outcomes over eighteen months of active duty. This is because personnel data from the USMC show that the vast majority of Marine attrition occurs during the first 18 months. In addition, based on the typical course of training and promotions, this time frame will provide substantive data on the performance of those who do *not* attrite since we will be able to obtain data on Marines' performance over several months in their military occupational specialties. We will therefore assess USMC enlistees at four different time points over an eighteen month period: at the start of the first week of recruit training (*Time 1: baseline*), at the end of recruit training (*Time 2: 12 weeks*), at nine months (*Time 3*), and at 18 months (*Time 4*).

Outcome measures will include: attrition, psychiatric and physical well-being, social-role functioning, and discrete outcomes described by the USMC and DOD including promotions, commendations, proficiency and conduct marks. ***Predictors*** of outcomes will include past background characteristics and past life stressor experiences as well as current aspects of Marines' work and community experiences in the USMC.

At Time 1, 600 women and 600 men will be recruited into the study at the recruit depot. Each participant will be provided with a consent form which carefully describes the study and requests permission to re-contact the

Marine for subsequent follow-ups, regardless of his/her military status. All participants will complete a written demographic questionnaire assessing background characteristics. In addition, participants will complete paper and pencil survey items related to their pre-military background to provide an index of previous stressor experiences as well as self-report measures of health and well-being to be used as baseline data for computing changes over the course of enlistment.

At Times 2, 3, and 4, participants who have not attrited will complete follow-up survey questionnaires that describe numerous aspects of their Marine Corps experiences related to training, work activities, and the broader Marine Corps community (Time 2 surveys are administered on site at Parris Island while Time 3 and 4 surveys are mailed to participants). In addition, measures of health and well-being that were administered at baseline will be repeated. Also, at Times 2, 3, and 4, specific duty performance and retention measures that characterize the first-term enlistment will be included (e.g., military occupational ratings, military promotions, disciplinary actions, proficiency, and conduct marks) to assess vocational success and adjustment.

Those participants who attrite from the USMC during the course of the study also will be assessed through the three follow-up time points. Enlistees who attrite during boot camp will be interviewed by on-site study personnel *prior* to leaving to review reasons for separation. For enlistees who attrite later, we will include a brief survey related to the separation at the first assessment point following discharge. At these subsequent assessment points, attritees will be administered the same health and well-being measures as those who are retained. However, duty performance measures will be replaced by a comparable survey of recent vocational accomplishment and psychosocial status.

In summary, we will re-survey each participant at three points post-baseline, regardless of their military status. Individuals who have left the service or who are deployed elsewhere (i.e., not at Parris Island) will be resurveyed by mail using their most recent address or a permanent address location obtained from service records.

Status/Results to Date

In accordance with the statement of work included in our initial proposal, months one-five of the past fiscal year (10/1/96-2/30/97) were dedicated to the hiring and training of research staff and to the development and validation of our Time 1 (administered at the beginning of recruit training), Time 2 (administered just prior to graduation), and Time 2B (administered via mail to individuals who attrite during recruit training) surveys.

Our Time 1 survey is a 31 page document (including title page and consent form) that, consistent with our experimental hypotheses, was

designed to obtain the following information: (1) demographics and personal history including educational background, and work, relationship and marital history; (2) personal resources/personality traits including self-esteem, problem solving style, hardiness, interpersonal instrumentality, and social support; (3) trauma history including exposure to childhood physical and sexual abuse and neglect, parental conflict, and community violence as well as adult exposure to sexual and physical assault; (4) psychological and substance use history; (5) current emotional well being including the assessment of symptoms of depression, anxiety and post-traumatic stress disorder; and (6) current physical well being and functioning. Only widely reported, well validated measures were used to assess the aforementioned variables. Additional questions designed to assess military-specific factors such as participant reasons for joining the USMC, perceived severity of training-specific stressors, perceived self-efficacy for successful completion of recruit training and perceived unit-cohesion were also included. These questions were constructed by our research team in consultation with numerous Marine Corps personnel on Parris Island.

Our Time 2 survey is a 28 page document that, like the Time 1 survey, used well validated measures to assess (1) personal resources and personality traits; (2) current emotional well being; and (3) current physical well being. Additional well validated measures designed to assess the perceived socioemotional characteristics of the training environment such as racial discrimination, sexual harassment, access to social support within the training unit, and interpersonal conflict were also included. Finally, in addition to the military specific questions included in Time 1, we also added several new questions about the perceived usefulness of the Marine Corps' corps values training classes and the Crucible experience on personal behavior and commitment to the Marine Corps, the occurrence of hazing during training, and participant satisfaction with recruit training and the participant's personal performance. These latter questions were prompted by our desire to provide the USMC with empirically sound feedback regarding many of their recent training innovations. Their construction was facilitated by the close and collaborative relationship we established with the Marine Corps once our research personnel were installed on Parris Island.

Our time 2B survey is a 29 page document that is virtually identical to the Time 2 survey except that several additional questions designed to assess adjustment to the civilian environment were added.

The piloting and refinement of these three surveys was a multi-step process that occurred during months six and seven of the past fiscal year (3/1-4/30/97). Our surveys were first evaluated by two highly regarded experts in the fields of gender and life stress and health and performance outcomes. After modifying the surveys based on their feedback, we administered all three surveys to small groups of male and female recruits on Parris Island and then conducted a series of confidential focus groups in which their feedback regarding the ease of administration and content relevance of the

surveys was obtained. The surveys were revised according to this feedback and then re-administered to new groups of female and male recruits who also participated in focus groups. After a third round of revisions, the surveys were distributed to a number of Marines on Parris Island including commissioned and noncommissioned officers for final feedback.

The final version of our Time 1 survey was administered to a total of 703 female and 841 male recruits on-site at Parris Island from 5/19-9/30/97 (months 8-11 of the last fiscal year). Data collection was greatly facilitated by the fact that all survey administration sessions (both Time 1 and Time 2) were included in the formalized training schedules of all platoons slated to take part in our study. The Time 1 survey was always administered on Forming Day 5 of recruit training, i.e., the Monday before Training Day 1.

The final version of our Time 2 survey was administered to the same subjects at the completion of their training. We began in 8/97 and are scheduled to complete administration in 11/97. The Time 2 survey is always administered two days before graduation (Training Day 62). While the majority of recruits graduate with their original platoon and company, a large number change platoons at least once during training. This "recycling" occurs whenever a recruit is not fit to advance in training for any one of a variety of reasons including injury, inability to master academic material, or failure to meet physical fitness requirements. The phenomenon of recycling and the complications it posed to our data collection was addressed by stamping recruit record books with a seal that identified them as part of our study and asked that our personnel be contacted whenever a recruit was dropped from the platoon. We also had access to the recruit training depot's tracking system, PI ARMS. Thus far, we have been able to capture and survey approximately 98% of our participants before graduation or discharge.

As noted in our research methodology section, any study participant who attrites during recruit training is interviewed by our on-site study personnel prior to discharge. The interview we've created is semi-structured and is designed to gather information regarding the recruit's personal experience of recruit training, his/her reasons for leaving, and future plans. It also seeks to solicit continued participation in the study and current mailing addresses are obtained. The interview is partially based on existing Marine Corps exit interviews and includes a brief essay question that asks the recruit to describe in his/her own words his/her reasons for leaving training. As with survey administration, all interviews are conducted by highly trained Ph.D. and Masters level mental health professionals. Thus far, 242 study participants have attrited and we have interviewed all but 8 of them.

All attritees are also administered follow up surveys via mail. The first wave of Time 2B surveys was sent out in 8/97 to participants that had begun training in 5/97. Thus far, our return rate for these surveys has been somewhat low (approximately 40%). This is surprising given that most recruits interviewed volunteered to continue in our study (99%). There are

several possible causes of the low return rate, the most likely being that many subjects may be immersed in the process of re-engaging in their civilian lives (e.g., finding jobs, entering college, etc.) and have little free time. In addition, some participants may be reluctant to complete our surveys because it reminds them of difficulties they may have had during recruit training. We are currently in the process of a second mailing and hope to facilitate returns by contacting participants by phone. We expect to complete administration of the Time 2B surveys by 11/97.

Because all of our surveys were created using a scannable format we expect data entry to proceed quite rapidly. We have already begun entering our Time 1 data and should complete this by 11/97. Entry of Time 2 and 2B data should be complete by 2/98. We are in the initial stages of preparing a basic manuscript describing the study design, sampling frame and participant characteristics and we expect to submit this and several other manuscripts analyzing the Time 1, 2, and 2B data by early 1998.

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