A MULTI-PERSPECTIVE EXAMINATION OF STRESS IN LATER LIFE

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by

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Abstract

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The broad objectives of this study were to document the nature of stress in the lives of older adults and to examine how stress is related to clinical depression in later life. Although considerable research links stress and depression, the term stress has been used to refer to the presence of a life event (i.e., a stressor), a psychological appraisal (i.e., perceiving an experience as stressful), or a physiological response (e.g., activation of stress hormones, allostatic load). In order to understand the relationship between stress and depression, each of these different definitions was considered.

The extensive literature on stress can be grouped into three broad traditions: environmental, psychological, and biological. The environmental tradition focuses on the idea of stress as life events that affect the individual or important members of family or friends. The psychological tradition focuses on individuals’ subjective appraisals of events and their own resources to cope with the stressor. The biological tradition defines stress as stimulus that activates specific physiological responses. Each of these theoretical perspectives conceptualizes links between stress and mental health differently, emphasizing the influence of their particular view of stress (i.e., occurrence of a severe life event, the individual’s psychological appraisal, cumulative adaptational wear-and-tear on the body, respectively) on the outcome. At the conceptual level, investigators from each domain mention potential contributions
from the other perspectives; however, environmental, psychological, and biological stress data are rarely collected in the same investigation. Using a multi-pronged approach to assessing stress and synthesizing this information to create stress profiles in persons with and without psychopathology is a necessary next step.

This descriptive study examined stress from environmental, psychological, and biological perspectives in a sample of 16 outpatients from a local community mental health center with a diagnosis of depression and 16 community-dwelling (matched for demographic characteristics) older adults. Quantitative and qualitative techniques were employed. First, life events, perceived stress, and allostatic load were used as predictors of current depression. Second, qualitative themes derived from individuals’ stories of stress were developed and patterns across depressed and non-depressed explored. Exploratory, data-intensive studies such as this can guide future investigations of the complex processes between stress and illness.
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CHAPTER 1

INTRODUCTION

Depression is one of the most common psychiatric problems in later life (Blazer, 1989). An estimated 1 in 10 older adults living independently is clinically depressed; estimates are even higher for elders with chronic health problems (Reynolds & Kupfer, 1999). Depression has diverse consequences ranging from withdrawal from close contacts to increased utilization of health services, higher rates of suicide (Reynolds & Kupfer, 1999), and higher medical disease mortality (Pennix, Leveille, Ferrucci, Eijk, & Guarlnik, 1999; Pennix et al., 2001). Most depressed people report experiencing a major stressful life event shortly before onset; however, the majority of people who are exposed to these events do not develop depression (see Kessler, 1997). Given the prevalence and cost of depression in old age, it is important to determine what characteristics and contexts contribute to this multifinality of outcomes. Studying pathological and normal persons together, as suggested by the developmental psychopathology perspective (Cicchetti, 1993), can shed light onto why some high risk individuals do not develop disease and, in turn, onto how to develop more effective intervention and prevention strategies. Studies of stress in later life are particularly important because there is evidence that variability actually “fans out” across the lifespan (Baltes, 1979), prompting recognition that individuals age differently (Bergeman, 1997). Documenting stressors, perceptions, and biological correlates, and any links to depression, in older adults will provide
important insight into this public health problem.

Despite its intuitive link with negative physical and mental health outcomes, actually conceptualizing and measuring stress is difficult (Monroe, 2008). The extensive literature on stress can be grouped into three broad traditions: environmental, psychological, and biological. The term stress could mean an external force, an internal appraisal, or a physical state. Even within a particular perspective on stress, there is ongoing debate about how to best assess it (S. Cohen, Kessler, & Gordon, 1997). Additionally, most perspectives give at least some mention of how influences from one of the other domains might fit into their depiction of the stress process (Folkman & Greer, 2000; McEwen, 1988).

The present study had two objectives. The first objective was to assess stress from the environmental, psychological, and biological perspectives to predict current depression symptomatology in a sample of older adults. These assessments produced quantitative stress scores which were used in correlation and regression analyses. The second objective was to further delve into the meaning of stress in the lives of older adults through in-depth, semi-structured interviews. The rich narrative data were examined using qualitative analysis procedures to develop themes and compare the patterns of contribution to particular themes by depressed and non-depressed participants. Rather than choosing a single conceptualization or pitting the perspectives against each other, the goal of this exploratory study was to employ multiple perspectives and measures to examine stress and its relationship with depression in old age. Together, the combined findings of this study can help profile who is depressed in old age and document the stressors older adults experience, how they perceive stress, what their biological stress profiles look like, and what stress means to them.
1.1 Using Environmental, Psychological, and Biological Stress Measures as Predictors of Depression in Older Adults

Although there is no single, agreed-upon definition of stress, research in this area aims to understand the “process in which environmental demands tax or exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place persons at risk for disease” (S. Cohen et al., 1997, p.3). The extensive literature on stress can be grouped into three broad traditions: environmental, psychological, and biological, each with a unique perspective on the definition of stress and the ideal assessment of it (S. Cohen et al., 1997). The environmental tradition centers on the idea of stress-as-change, assessing the number of objectively defined important life events that have occurred (Clark, Bond, & Hecker, 2007). This tradition typically utilizes paper and pencil checklists of events, but also includes in-depth interviews of life events with detailed rating protocols. The psychological tradition centers on individuals’ subjective perceptions of events and their own abilities to cope with them (S. Cohen et al., 1997). Rather than creating a stress score based on normative weights of events, the focus is on understanding how events and resources are perceived. The biological tradition conceptualizes stress as stimulus that activates specific physiological responses. Levels of hormones such as epinephrine and norepinephrine involved in the flight or fight response, as well as glucocorticoids which maintain the activation or inhibition of systems, are of interest here (Sapolsky, 2004). Long term effects of these stress responses are an increasingly active area of research.

1.1.1 Environmental-Contextual Perspectives on Stress.

Stressful life events are hypothesized to be central to the development and progression of psychological disorders and research linking stress and depression has
produced consistent results (Hammen, 2005). Research from the environmental perspective focuses on events as stimuli for producing stress and subsequent disease (S. Cohen et al., 1997; S. Cohen, Janicki-Deverts, & Miller, 2007).

**Life event checklists.** Life event checklists have been the most commonly used measures of life stress (Wethington, Almeida, Brown, Frank, & Kessler, 2001). Most checklists are modeled after the Social Readjustment Rating Scale (Holmes & Rahe, 1967), with checklists tailored for specific groups, including older adults (Aldwin, 1990). Although they align with theory (Brown & Harris, 1978; Lazarus, 1966; Selye, 1978), findings documenting the relationship between stress and health are undermined by reliability and validity problems in this method of measuring stress (McQuaid, Monroe, Roberts, Kupfer, & Frank, 2000), such as intracategory variability, which inflate measurement error (Dohrenwend, 2006; McQuaid et al., 2000; Monroe & Roberts, 1990). Most checklists assume a simple additive model of stress, in which an individual who reports many minor difficulties could produce the same stress score as someone who reported one major life crisis (Monroe & Simons, 1991). Additionally, checklist data can be systematically biased because respondents’ depressive symptoms lead to increases in reported negative events (L. H. Cohen, Towbes, & Flocco, 1988). Despite these problems, checklists are inexpensive and brief and have been used extensively in the literature, lending themselves to cross-study comparison.

**Life event interviews.** Interviewer-based methods also fall within the domain of an environmental perspective on stress (Wethington, Brown, & Kessler, 1997). In contrast to checklists, which include a broad array of positive and negative experiences, life event interviews focus primarily on severe negative events and attempt to differentiate between acute stressors and ongoing difficulties (McQuaid et al., 1992). Additionally, interviewer-based assessments have the potential of greater precision
through their use of follow-up probes for further information about the context of the stressor and props such as calendars and respondent-relevant dates (e.g., birthdays and holidays) to aid in establishing when an event occurred (Lepore, 1997). These methods utilize in-depth semistructured interviews and detailed rating procedures. The focus here is on constructing a narrative story of each event (Gorman & Brown, 1992). Interview methods typically include a set of questions regarding whether specific types of events have occurred during the study period. If a participant reports an event, the interviewer probes for further detail surrounding its circumstances (e.g., what was going on before the event; if, or when, the situation was resolved; who was involved). The most commonly used life stress interview is the Life Events and Difficulties Schedule (LEDS; Brown & Harris, 1978), a semistructured interview with a series of questions regarding life events in domains (e.g., work, family, health) as well as general guidelines for probing.

The current study included LEDS interviews of both depressed and non-depressed older adults. Contextual ratings of stress were assessed through the established LEDS procedure, which provides specific guidelines for defining stress and rating dimensions of stressors (McQuaid et al., 2000). These interviewer-based ratings of stress are especially key in depressed samples, because depressive symptomatology has been found to produce inflated reports of negative events in self-report measures (L. H. Cohen et al., 1988). Although the LEDS is considered a gold standard in stress assessment, it has not been used extensively in older adult samples (for exception see Dew et al., 1997; Frank et al., 1996). A traditional self-report stress measure (e.g., Aldwin, 1990) was used to compare its utility with the LEDS for the first time in a sample of depressed and non-depressed older adults. As the relationship between stress and depression has both clinical and theoretical implications, it is important to examine the kinds and severity of the events that elders have
1.1.2 Psychological Perspectives on Stress.

From the psychological perspective, life events in and of themselves are not sufficient cause for pathology. Instead, it is the interaction between the person and the environment that produces the risk to physical and mental health (Lazarus, 1966). The psychological perspective posits that it is this interplay that produces individual differences in outcome when people are exposed to the same event (Lazarus & Folkman, 1984). Much like the informative contribution of the larger life context that the LEDS brings to stress assessment, the psychological perspective brings forward cognitive appraisal as the mediating process between stress and outcome. Cognitive appraisal is a key part of this process, assessing both the situation’s possible impact on well-being (primary appraisal as irrelevant, benign or positive, or stressful) as well as the individual’s own capacities for response (secondary appraisal). Psychological stress occurs when the individual iteratively evaluates this interaction and determines that the demands of the event are too much for her or his resources to overcome, thus endangering well-being.

Instead of conceptualizing stress as a static, unidirectional influence on human development, the transactions inherent to psychological theories may allow for more accurate depiction of the stress-well-being relationship and inform the literature on why some people age better than others. Measuring stress appraisal and meaning, however, is not without problems (Monroe & Kelley, 1995). The transactional nature of appraisal is an important contribution of this perspective; that is, pathology may produce distorted appraisals (Monroe & Kelley, 1995). In combination with other assessments and perspectives, however, documenting stress appraisal in a sample of depressed older adults could contribute to a more multidimensional rep-
representation of this phenomenon. Within the psychological perspective there have been heated discussions on how best to measure stress appraisal (e.g., Lazarus, De-Longis, Folkman, & Gruen, 1985). One widely used measure from the psychological perspective is the Perceived Stress Scale (PSS; S. Cohen, Kamarck, & Mermelstein, 1983), which was used in the present study.

1.1.3 Biological Perspectives on Stress.

From a biological perspective, stress is conceptualized in terms of the activation of adaptive physiological systems (Clark et al., 2007). When a stressor is encountered, the hypothalamic-pituitary-adrenal (HPA) cortical stress response system is activated, stimulating the release of stress hormones. These hormones produce the flight-or-fight response that is manifested in, for example, increased heart rate and blood pressure (Lupien et al., 2006). These stress responses are essential for dedicating the energy resources needed to deal with the current threat. When the stressor is dealt with or passes, the body systems return to their baseline regulatory points (e.g., homeostasis). The term allostasis is used to describe the capacity to activate these individual adaptations to threat (McEwen, 2000). Although these individual adaptive actions are essential for responding to ongoing changes in the environment, they come at a price.

In a normal allostatic response, a stressor initiates the physiological response; this response is sustained for the necessary duration and then turned off (McEwen, 1988). Allostatic load (AL) refers to the cumulative wear and tear on the body from repeated employment of allostatic responses, as well as their inefficient activation and termination (Lupien et al., 2006). Four types situations that may produce AL have been described (McEwen, 1988, 2000). First, the presence of chronic stress may result in the frequent activation of the stress response by repeated “hits” from
different stressors. Second, a person may encounter the same stressor multiple times but fail to adapt to it. Third, an individual may show a prolonged response, failing to shut down the stress reaction when the threat has passed. Fourth, the response may be inadequate for the demands of the stressor. In these latter three cases, it is not the excess number of stressors in the individual’s life, but the body’s inability to manage its response to stress (McEwen, 2000 that produces difficulty.

McEwen and Seeman (1999) describe the cumulative process of damage resulting in AL as the activation of primary mediators (e.g., increased cortisol release), which lead to primary effects and secondary outcomes (e.g., high blood pressure, glucose intolerance), which lead to tertiary outcomes (e.g., heart disease, diabetes). Primary mediators are chemical messengers such as cortisol, epinephrine, norepinephrine, and DHEA that are released in the process of allostasis (Lupien et al., 2006). In general, this release is adaptive, helping the individual adapt and coordinate multiple systems to respond to threat; however, disregulation or prolonged elevation of these mediators can lead to secondary and tertiary outcomes of AL. Primary effects result from the action of primary mediators. These are cellular events (e.g., enzymes, receptors, ion channels, structural proteins) and are the hypothesized links between primary mediators and secondary outcomes, but are not well studied (McEwen & Seeman, 1999). Secondary outcomes are cumulative results of primary effects put into action by primary mediators. These often are related to the actions of more than one primary mediator and are manifested in risk for metabolic and cardiac disease, as well as damage to the brain and immune system. Examples of secondary outcomes include increased waist-to-hip ratio, high blood pressure, elevated levels of cholesterol, insulin and glucose intolerance, decreased immune function, and mild cognitive decline unrelated to age (McEwen & Seeman, 1999). Markers of secondary outcomes serve as warning signs for tertiary outcomes, which are the actual diseases
and disorders resulting from AL. Tertiary outcomes include major health problems such as cardiovascular disease, decreased physical capacity, cancer, and severe cognitive decline.

Age and depression may place individuals at risk for compromised adaptation. Failure to shut-off stress-related symptoms when the threat has passed has been found in studies of older animals and, to a smaller extent, humans. Aged laboratory rats show slower return to baseline for stress-induced cortisol and adrenaline (McCarty, 1985) and higher levels of epinephrine and norepinephrine (Mabry, Gold, & McCarty, 1995) relative to younger animals; these exaggerated responses to stress may affect the development of age-related pathologies (McCarty & Gold, 1996). Fewer studies have examined the physiological implications of stress in older humans. There is, however, evidence for reduced responsiveness in the negative feedback (e.g., message to body to temper its stress response) effects of cortisol (Wilkinson, Peskind, & Raskind, 1997). Further, depression consistently has been linked with a variety of medical illnesses (e.g., cardiovascular disease, cancer, neurological disease) as a risk factor for, outcome of, or dynamic influence on the development of these diseases (Elovainio et al., 2006; Evans & Charney, 2003). McEwen (2003) suggests a pattern of stress-related pathophysiological alterations accompanying depression beginning with amygdala hyperactivity, followed by hippocampus disregulation, then bone mineral loss and abdominal obesity, and finally increased risk for cardiovascular disease.

The current study includes global measures of AL. Possible long-term effects of adaptation to stress are of interest here. The selection of the biomarkers used to construct an index of AL follows the lead of other researchers (Crimmins, Johnston, Hayward, & Seeman, 2003; Seeman, McEwen, Rowe, & Singer, 2001). Some of the assessments chosen are chemical messengers (i.e., primary mediators) released as
part of allostasis: cortisol, epinephrine, norepinephrine, and serum dihydroepiandrosterone sulfate (DHEA-S). Other assessments represent secondary outcomes related to functioning across bodily systems: cardiovascular (diastolic and systolic blood pressure) and metabolic (waist-to-hip ratio). Other secondary outcomes assessed are risk factors for the development of disease: atherosclerosis (serum HDL and total cholesterol), coronary heart disease (c-reactive protein), and diabetes (glycosylated hemoglobin). Primary effects, the cellular events produced by the release of the primary mediators, are difficult to observe directly and here, as in other studies, are inferred by the presence of secondary outcomes. Tertiary outcomes, that is the presence of disease and disorder related to cumulative wear-and-tear, are assessed in this study via a review of individuals’ medical records. These data will allow for comparisons of outpatient and community participants’ stress- and adaptation-related health.

Quantitative methods such as these are ideally suited for comparing groups and predicting outcomes. The measures selected represent model assessments of each perspective. Each is tightly aligned with theory and has a documented research literature across large and varied samples. Each perspective posits a link between its definition of stress and psychopathology. What is missing is the systematic investigation of how these different components of stress cohere in ways that lead to heightened vulnerability.

The processes involved in the development of psychopathology and physical disease are complex.

One depiction of the many and interrelated paths between stress and depression is provided in Figure 1. The figure incorporates elements from each of the perspectives and superimposes the hypothesized connections between domains. For example, many graphical depictions of the stress response include a stressor as an
Environmental Demands (Stressors, Chronic Strains or Major Life Events)

Appraisal of Demands and Adaptive Capacities (Engage Resilience Mechanisms)

- Benign Appraisal
- Perceived Stress (Real or Implied)

Negative Emotional Responses

Physiological or Behavioral Responses

- Engage Resilience Mechanisms
- Stressor Ends

Homeostasis

Activation of Primary Stress Mediators (Cortisol, Epinephrine, and Norepinephrine, DHSEA)

Extended Activation (Repeated Hits, Lack of Adaptation, Prolonged Response, Inadequate Response)

Outcomes (Cardiovascular Disease, Diabetes, Hypertension, Cancer, Depression, Cognitive Decline)

Effects (Increased Waist-hip Ratio, Blood Pressure, Cholesterol, and Glucose Levels; Decreased Insulin Levels, Immune Capacity, and Glucose Tolerance)

FIGURE 1.1: Conceptual model of stress process
initiating agent near the top of the figure. This environmental stressor may be a life event or some sort of chronic strain. A theorized next step is the individual appraising the situation, weighing the demands of the stressor and the resources available. If this evaluation determines that the resources are sufficient for the challenge, the stressor is appraised as benign. If it is determined to be threatening, negative affect is displayed. It is proposed that physiological and behavioral responses are then engaged to cope with the stressor and these coping strategies re-evaluated. An individual with resources that are well-matched to the stressor may be able to defuse the harmful agent or the stressor may end, allowing the person to return to homeostasis. Extended activation (by repeated stressful occurrences, the inability to adapt to the new constrains, maintaining the response even when the stressor has ended, or insufficient response to the demands), however, could produce wear-and-tear on the body. This change is proposed to appear immediately after exposure as elevated levels of stress hormones, but over time the person may display risk characteristics for poor health, and eventually develop physical or mental illness. Prior to testing a complex model such as that displayed in Figure 1, investigations which provide detailed foundational data are necessary. The questions of here allow for the examination of how stress from each of the perspectives relates to current depression.

1.2 Understanding the Meaning of Stress for Depressed and Non-Depressed Elders

Monroe (2008) discusses the inherent hazards and charm of using individuals’ subjective views of stress. Standardized methods of assessing perceived stress exist (and were utilized in the quantitative analyses). More exploratory methods, however, may offer new insights and connections. In-depth qualitative interviews can also be used to explore older adults’ account of the meaning of these experiences
as informed by the particulars and nuances of their individual lives. The literature abounds with theoretical depictions of the stress process (e.g., Lazarus & Folkman, 1984; Pearlin, Anehensel, & LeBlanc, 1997), but measuring processes such as stress proliferation in action is difficult. Interviews allow participants to “walk” an investigator through the experience of a stressor. Depression and other psychopathology likely affect which stressors appear, how they are appraised, and what response is selected (Monroe & Kelley, 1995). Therefore, it is imperative to investigate the way in which depressed and non-depressed older adults tell their stories of stress.

Qualitative methods were employed for this aim. Empirically-derived instruments and assessments are important for comparing across samples and generalizing to a population. Standardized questionnaires and situations, however, may by their very nature limit the phenomena under study (Neimeyer & Hogan, 2001). In-depth interviews, in contrast, allow the participants to steer the interview to topics relevant to their experience, rather than fitting their experience into forced-choice responses. Themes emerge from the data through iterative comparison of data “chunks.” This exploratory focus, characteristic of many qualitative approaches, can identify other aspects of stress and weigh the meaning of experiences through context that may not appear in theory, research, or clinical practice. It offers an opportunity to both provide instances of theorized occurrences as well as opens up novel depictions of the phenomenon with participant insights that researchers may not have known to even ask about.

Maykut and Morehouse (1994) outline eight characteristics of qualitative research. These characteristics and relations to the present project are discussed. (1) An exploratory and descriptive focus: Rather than testing hypotheses, the goal in most qualitative studies is one of discovery. Discovery-oriented inquiry is typically framed with open-ended research questions such as “What kind of events do these
older adults nominate as stressful or important?” and “How do they explain the experience of stress?” (2) Emergent design: Discoveries can reorient a project at any point in the process, not only at the time of interpreting results. In qualitative studies, the iterative nature of research is apparent. Novel ideas that emerge early on in the data collection may redirect the ways in which questions are asked or what other participants are added to the study. Early in the data collection for the current study, it was determined that the planned interview questions were not providing the kind of information that would best complement and inform the other data. Additional questions that probed for participants’ descriptions of the stress process were developed and are described in the Measures section.

Maykut and Morehouse (1994) also point out specific sampling and data collection goals as features of qualitative studies. (3) Purposive sample: Participants are selected in a purposeful way to expand the variability in the sample. Maximum variation sampling, one type of purposive sampling, selects participants that represent the greatest differences in the topic of interest in order to better understand the phenomenon. In Scott et al. (2007), interviews with widows with the most divergent trajectory plots were selected to map out the extremes of the experience of social support following bereavement. (4) Data collection in the natural setting. Qualitative studies, particularly ethnographies, place a priority on context; “personal meaning is tied to context” (Maykut & Morehouse, 1994, p. 45). In a broad-based study of stress such as this one, it is not feasible to go to the environments in which the participants spend most of their time and do the prolonged engagement necessary to observe a stressor happening. Instead, context is derived through careful questioning about the details of the event - when it happened, what else was going on, where it occurred, who was present, how long it lasted - through both components of the interview. The interview components are described in detail in the
Measures section.

The researcher is intimately intertwined in the iterative process of analyzing qualitative data. (5) Emphasis on “human-as-instrument.” In qualitative studies, the researcher both collects the data and culls the meaning from it (Maykut & Morehouse, 1994). As with traditional measures, it is appropriate to provide information for the reader to evaluate the trustworthiness of the researcher-as-instrument. This information typically includes gender, education, training, and experience relevant to the study and is provided in the Measures section. (6) Qualitative methods of data collection: The words that people use and the way in which they describe their experiences are the primary focus of qualitative studies. Therefore, these studies tend to participant observation, in-depth interviews, and relevant documents. Interviews and field notes are transcribed for use in analysis. (7) Early and ongoing inductive data analysis: As noted in point 2, data analysis occurs throughout the study and may even feedback into changes in data collection. The inductive nature of analysis may require the researcher to broaden or narrow the focus of inquiry to follow the lead of the data. It is important to keep in mind “what is important is not predetermined by the researcher” (p. 46), but “what is meaningful to the participants of the study” (p. 47).

Qualitative reports typically include brief and extended quotes in order to highlight the actual words participants used to describe their experiences. (8) A case study approach to reporting research outcomes: The unique value of qualitative studies may be most apparent when the rich narrative data is displayed in the results and discussion. Often, themes and propositional statements are presented with accompanying quotes that provide evidence or nuance to the findings. By “letting the participants speak for themselves” (p. 47) through the inclusion of illustrative quotes, qualitative researchers engage the reader in determining the value of the
The focus of these qualitative analyses is on documenting the ways in which older adults describe stress and detecting any thematic patterns in depressed and non-depressed elders’ stories. These themes offer the opportunity to inform the
larger study. The quantitative assessments and analyses shed light on questions of environmental exposure and psychological appraisal - depicted in the top portion of Figure 1 - as well as indications of stress related physical wear-and-tear - depicted in the lower portion of the figure. Given the cross-sectional nature of the study, the quantitative assessments are not able to capture the process in action. Instead, individuals retrospectively report on events, rate their general perceptions of stress, and give blood and medical reports to indicate current physical health. The themes highlighted in the current study focus on participants’ descriptions of the lived experience of the stress-in-action. Together, the two components provide detailed information on stress in later life.
2.1 Participants.

*Outpatient Sample.* Participants for the clinical sample were current and recent outpatients at Madison Center Geropsychiatric Institute (MCGI), a local community mental health center. The research team met with staff to explain the project and request help with recruitment. Therapists and doctors were provided with a letter that overviewed the study and offered contact information. Recruitment flyers were provided to therapists and available in the waiting area of the outpatient wing. Interested older adults completed a form with their name and phone number; the therapist liaison for the project gave these to the research team. Potential subjects received phone calls to provide more information about the study, assess whether they met criteria (e.g., age; diagnosis and ability to participate was confirmed prior to the follow-up call with the therapist liaison), collect demographic information to locate a “match” in the community sample, and schedule the interview. Criteria for the study included 60 years of age or older and primary diagnosis of depression as assessed in a clinical interview. Those with a history of stroke or primary or secondary diagnosis of dementia were excluded from the study. Prior to data collection, the collaborating medical doctor from the mental health center reviewed the participants’ medical file and ordered the blood draws.

A sample of 16 older adults was interviewed from the pool of interested outpa-
tients. Three other persons completed the recruitment form. Upon follow-up, one
decided not to participate and another had already completed data collection, but
thought the recruitment was for a new study. Data collection was initiated with a
third person, but the participant expressed suicidal thoughts during the diagnostic
interview. Following protocol, further data collection was not pursued. Instead, the
participant was thanked for her time, given the monetary compensation, and the
social worker at the site as well as MCGI contact was informed.

Community Sample. A sample of 16 community participants was identified from
the ongoing Notre Dame Study of Health & Well-Being (NDHWB). Participants
were selected to match the outpatient sample on sex, race, age, marital status, in-
come, and education and invited to participate in the study. The NDHWB sample
was developed by purchasing names and addresses from Survey Sampling Interna-
tional. The sampling frame was targeted for age (60-64, 65-69, 70-74), sex, race, and
region. Participants are mainly from Elkhart and St. Joseph counties, but there is
a smaller number from the surrounding counties as well (i.e., the 5 counties in the
Northern Indiana region). Upon agreement to participate, NDHWB participants
were mailed a letter providing more details on the study and the consent to release
medical records. This form allowed primary doctors to release the last 12 months
of medical records to the research team. The MCGI medical director collaborat-
ing with the study reviewed these records and ordered the blood draws. For those
participants who elected not to share medical records (n = 1) and for those whose
doctors did not send the records in time for review (n = 6), the participants signed
consent for the draws when the phlebotomist arrived. The participant who elected
not to share her medical records completed the disease checklist (Belloc, Breslow,
& Hochstim, 1971) that was used to code the medical records. Medical records for
all of the remaining NDHWB participants arrived and were later coded.
Of the potential NDHWB matches identified, 9 had moved away or dropped out of the study. Seven lived more than 30 miles from the research offices. Eleven had completed interviews for the larger study the previous summer. In an effort not to strain the NDHWB sample, these participants were not recruited for the current project unless other matches could not be found; two individuals who had been interviewed previously are included in the current study. Of the NDHWB potential matches contacted to participate, six declined to participate.

Demographic Information. The outpatient sample ranged in age from 62 to 86 years (M = 73.06, SD = 7.41). The sample was predominately female (n = 15), with one male participant. The majority (n = 14) of the participants were Caucasian; two were African American. Three participants were currently married; four described themselves as single, five were widowed, and four were divorced. Three participants reported an income of less than $7,500 per year, four reported annual income between $7,500 and $14,999, 3 between $15,000 and $24,999, one between $25,000 and $39,999, three between $40,000 and $74,999, and one participant reported annual income greater than $100,000. All participants had at least a tenth grade education; seven had attended vocational school or some college and two had college degrees.

As the community sample was selected to be as similar as possible to the outpatient sample, the demographic data are similar across the groups. The community sample was also about 73 years old on average (M = 72.69, SD = 7.12) and ranged from 58 to 85 years of age. Again, 15 women and one man from the NDHWB sample participated. Similarly, 14 of the participants were Caucasian and two were African American. Four participants were currently married; two were single, five were widowed, and five were divorced. Two participants reported an income of $7,500 to $14,999, eight reported annual income between $15,000 and $24,999, two
between $25,000 and $39,999, one between $75,000 and $99,999, and one participant reported annual income greater than $100,000. One participant in this sample had a grade school education; seven had at least a tenth grade education, four attended vocational school or some college, and four had college or advanced degrees.

2.2 Procedures.

Assessments occurred individually and took place at MCGI, with the exception of one interview that took place at the participant’s nursing home residence. As physiological assessments (e.g., cortisol, which peaks in the morning and declines over the day) are influenced by diurnal patterns and some tests require fasting (e.g., 12 hour fast required for lipid panel for cholesterol assessments and c-reactive protein; South Bend Medical Foundation, n.d.-b, n.d.-c), interviews began between 8:00-10:30 and the exact time of the actual collections was recorded. Most blood draws occurred around 9:00. Participants were welcomed, the study described, and asked to sign informed consent. At this time, the outpatient sample also signed a release of medical records from their primary physician and another release for MCGI records to be reviewed for health information relevant to the study; MCGI records were not reviewed for the current study. The community sample received medical records releases via mail prior to the data collection. Medical record information was received from all of the participants (with the exception of the participant who declined to release her records but completed the disease checklist that the team used to code the medical records).

The research assistant recorded the first blood pressure reading, waist and hip measurements, height and weight, and the second blood pressure reading. Allostatic load physiological data (glycosylated hemoglobin, DHEA-S, norepinephrine, epinephrine, c-reactive protein, cortisol) were collected by a trained phlebotomist
and these samples were transported and analyzed by the South Bend Medical Foundation. Following the blood draws, participants were offered refreshments. A research assistant then conducted the diagnostic interview with the participants. Participants then completed a brief battery of self-report questionnaires including a life events checklist and perceived stress measure. The LEDS and qualitative interviews were the final activity. Data collection typically lasted about two hours, but ranged between one and three hours.

Participants were asked if they had any questions regarding the study, given $50 for their participation, and thanked for their time. Additionally, the results of the blood draws were offered to be sent to their primary doctors to be added to their medical records. All participants requested the results be sent; one also requested a copy for her own records.

2.3 Quantitative Data.

2.3.1 Depression Status.

Interview. All participants were screened for depression, mania, and substance abuse by a trained member of the research team. The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I; First, Spitzer, Gibbon, & Williams, 1996) was used. The SCID is a semistuctured interview for making reliable and valid DSM-IV Axis I diagnoses. A benefit of the SCID is that it can be tailored to create a diagnostic assessment that meets needs of a particular research protocol (Spitzer, Williams, Gibbon, & First, 1992). In the present study, SCID modules for mood disorders were the focus. Interview questions for each module follow a decision tree approach, in which the interviewer asks closed-ended questions (typically answered “yes” or “no”) about whether the participant has experienced specific symptoms. The interviewer bases ratings upon DSM-IV criteria (1 - symptom is absent; 2 -
subthreshold condition, nearly meets the threshold for criterion; 3 - criterion is met). If a required criterion is not met, the interviewer skips the remaining items for that disorder (Spitzer et al., 1992). For each disorder of interest, the SCID records the presence or absence in the past month as well as lifetime occurrence.

Current SCID diagnostic status was used as a categorical variable for depression for this study. Two categorical variables were created for this study, one binomial variable for presence of clinical depression and one multinomial variable to indicate cases with clinical depression, subthreshold cases, and non-depressed. Those who meet five of nine symptoms in the depression module meet criteria for major depressive disorder (MDD). Different definitions of subthreshold MDD appear in the literature (see Cuijpers, Straten, & Smit, 2007). Following other researchers (Lyness et al., 2006; Willemse, Smit, Cuijpers, & Tiemens, 2004), subthreshold cases were identified using a cutoff of one “core” symptom (e.g., depressed mood or anhedonia) and at least one other symptom in the depression module.

*Depression Symptoms Checklist.* The Geriatric Depression Screening Scale (GDS; ?, ?) was used as a self-report of depression. It has been validated with both clinical and community populations (for review, see Montorio & Izal, 1996). Including the GDS in the current study has two purposes. First, the scale consists of 30 items for which participants endorse yes or no, allowing for a more continuous measure of depressive behaviors and thoughts to complement the categorical assignment provided by the SCID. Further, the GDS was specifically designed as a screening tool for use with older adult populations. Some somatic symptoms, which are often predictive of depression in younger adults (e.g., sleep disturbances), are common in nondepressed elderly. Sample items include “Have you dropped many of your activities and interests?” and “Do you feel pretty worthless the way you are right now?” Scores range from 0 to 30, with higher scores indicating more depression symptomatology.
As the categorical analyses proposed for this project were not feasible due to small sample size, particularly in the MDD group, it is important to determine how well the more continuous assessment of depression symptomatology mirrors the SCID classification. Brink et al. (1982) examined a variety cutoff values for the GDS to evaluate the sensitivity and specificity of the instrument. In their work, a cutoff of 11 resulted in 84% sensitivity (correctly identifying depressed elders) and 95% specificity (correctly identifying nondepressed elders); using a cutoff of 14 resulted in 80% sensitivity and 95% specificity. GDS score was compared to SCID depression status as an evaluation of sensitivity and specificity in the current study. Using a score of 11 or more on the GDS compared to dichotomous MDD or non-depressed classification resulted in a sensitivity of 100% and specificity of 68%; using the more restrictive score of 14 or more resulted in a sensitivity of 91% and specificity of 80%. A comparison of GDS score and probable depression (subthreshold or MDD SCID classification) vs. no depression with the lower cutoff resulted in 82% sensitivity and 85% specificity; using the more conservative cutoff resulted in 82% sensitivity and 85% specificity.

2.3.2 Environmental-Contextual assessments.

Checklist. Stressful life events were assessed in the traditional, check-list format using the Elders Life Stress Inventory (ElSI; Aldwin, 1990). Participants answer yes or no to whether 31 items occurred in the last year. The measure includes positive and negative life events that an older person might experience. Items tap several domains, including health, finance, family, work, and family. Sample items from these domains include “major personal injury or illness,” “major deterioration in financial state,” “loss of very close friend due to a move or break in friendship,” “retirement,” and “death of spouse.” A simple count of events is typically used in
check-list inventories, and has been used with this instrument (i.e., Isaacowitz & Seligman, 2001; von Dras, Powless, Olson, Wheeler, & Snudden, 2005). A total ELSI score was computed by summing the number of stressful life events endorsed. A higher score represents more life events experienced.

Interview. The Life Events and Difficulties Schedule (LEDS; Brown & Harris, 1978) was used as to obtain in-depth information and contextual ratings of the stressors experienced by the depressed older adults in this sample. The LEDS is a semistructured interview with a series of questions regarding life events in specific domains (e.g., work, family, health) as well as general guidelines for probing for additional information to better evaluate the context of each stressor. Prior to the formal LEDS interview, the interviewer compiles background biographical (e.g., age, marital status, type of work) and social (e.g., family and friends in frequent contact, identification of confidants) information from the respondent. This information is useful in introducing the interviewer to the central "characters" in the respondent’s story as well as providing the necessary data for making the contextual rating (see further description of contextual rating below). The study period of focus in the LEDS interviews was the previous 1 year. The interviewer instructed the participant to think about this time period and used seasons, holidays, and important dates to help the participant in recalling the closest possible estimate of the date of the occurrence. Although the LEDS has detailed scoring manuals and established domains and protocol for questions, the interview itself is designed to be flexible and follow a conversational flow, rather than a clinical interview or standard survey (Wethington et al., 1997). Interviews are typically between one and three hours in length.

Contextual threat rating is a hallmark of the LEDS system. These ratings are based on the expected response of an average person to the event given the bi-
That is, contextual threat ratings should “reflect what most people would be expected to feel about an event in a particular set of circumstances and biography, taking no account of either what the respondent says about his or her reaction or about any psychiatric or physical symptoms that followed it” (italics original; Brown, 1989, p. 24). The interviewer prepares summaries of each event and difficulty for presentation to the rating team during consensus meetings. Subjective reactions and emotional responses to the event or difficulty are omitted from these summaries; the rating panel is blind to the illness status of the participant. Detailed dictionaries with information regarding threat ratings for specific kinds of events and difficulties, as well as example rated summaries, aid the team in establishing the rating.

In the LEDS system, events are defined as acute stressors that last less than two weeks. Difficulties are also assessed in the LEDS; these are ongoing stressors that last over a month. Losing a job could be an example of an event; the financial constraints resulting from extended unemployment is an example of a difficulty (McQuaid et al., 1992). Although events may lead to difficulties, this is not a requirement. These different types of stressors may occur independently. Both events and difficulties were assessed in the current study, however, only events were used in the analysis.

Across studies, the most important LEDS scales have been found to be short-term and long-term contextual threat (Brown, 1989). Short-term threat refers to the contextual threat implied on the day of the event or a few days afterward. Long-term threat refers to the contextual threat implied about 10 to 14 days after the event’s occurrence. A five-point scale for the degree of threat or unpleasantness is used: “marked,” “high moderate,” “low moderate,” “some,” or “little or none.” Marked and high moderate events have been termed severe events. In previous LEDS studies, it is only those events that are marked or high moderate in long-
term threat that have been linked to depression (Brown & Harris, 1978), this has not been found for events of short-term threat. The current study used the event data, focusing on the long-term threat ratings of those events.

Ratings were performed by the research team, which included myself and two graduate students also trained in the LEDS; Dr. Monroe and Dr. Bergeman consulted on the project. Two sets of codings were sent to LEDS co-developer and trainer, Dr. Tirril Harris, for review. This project served as the first real LEDS coding experience for myself and one other member of the research team, aside from the week spent in London with the training interviews and instructor. The team developed a method of each member listening to an interview and writing a synopsis to present to the group. Synopses included background information about the participant (i.e., age, gender, ethnicity, marital status, identification of primary contacts and confidant), as well as possible events and difficulties in the last year. The team then met and discussed each case in order to determine which events and difficulties met criteria to be coded and to decide whether a follow-up call to the participant was necessary to clarify any details. Two team members then independently coded each interview for the following meeting. At this consensus meeting, coders presented their results. In the event of disagreement, coders presented their rationale from the LEDS manuals. The third member of the team asked questions about the event and helped in determining the code that was most consistent with the LEDS criteria and team’s previous decisions on similar issues. In previous work by LEDS teams, reliability ranged from .72 to .81 (Monroe, Slavich, Torres, & Gotlib, 2007; Monroe et al., 2006). The codings for this study served to train and establish the research team. Reliability was not calculated for the current study, but will be assessed in an upcoming project with a set of 25 other LEDS interviews with older adults. Both events and difficulties were coded by the team. Analyses in the present
2.3.3 Psychological Assessments.

Perceived stress was measured with the 14-item Perceived Stress Scale (PSS; S. Cohen et al., 1983). The PSS was designed to globally assess the degree to which individuals appraise the situations in their lives as unpredictable, uncontrollable, and overloaded. Participants report the frequency of feeling in agreement with the 14 items on a four-point scale (never, sometimes, often, always). Items use the stem, “In the last month, how often have you” Sample items include “been upset because of something that happened unexpectedly?” “felt confident about your ability to handle your personal problems?” and “felt difficulties were piling up so high that you could not overcome them?” PSS scores are computed by reverse scoring the seven positive items, then summing across all 14 items. A higher score represents more perceived stress. Cronbach’s alpha in the Notre Dame Study of Health & Well-Being is 0.86.

2.3.4 Biological Assessments.

Allostatic load biomarker collection. A research assistant collected blood pressure and waist-to-hip ratio. Systolic and diastolic blood pressure was assessed using an automatic blood pressure monitor (#344532, CVS Pharmacy, Inc., RI). The average of the first and second seated blood pressure readings, assessed five minutes apart, was used (Detection & Group, 1978). Waist-to-hip ratio was measured using waist circumference (at narrowest point between ribs and iliac crest) and hip circumference (at maximal buttocks); a simple ratio of these measurements was calculated (Lohman, Roche, & Martorell, 1988). Blood samples for the other bio-
logical indicators (i.e., cortisol, epinephrine, norepinephrine, DHEA-S, hemoglobin A-1c, total and HDL cholesterol, c-reactive protein) were collected by a phlebotomist from South Bend Medical Foundation (SBMF). In order to limit strain on participants, all biological indicators used blood draws. This is a divergence from Seeman et al. (2001) and other large-scale studies of AL in which 12-hour overnight urine collection for cortisol, epinephrine, and norepinephrine excretion assessment.

Samples of catecholamines (used for assessment of epinephrine and norepinephrine) and cortisol are not common tests for SBMF; they were collected by SBMF phlebotomists, but were sent to another facility for analysis. Plasma samples of catecholamines have special collection and handling requirements (i.e., subjects should be in supine position for 30 minutes prior to the draw, a preferred collection volume of 4.0 mL, placed in ice slush for transport, plasma should be separated from cells within 1 hour and frozen until analyzed; South Bend Medical Foundation, n.d.-a). With the rarity of these tests, the phlebotomists were unfamiliar with the special procedures associated with them; the protocol was not followed in the early part of this study. Data collection was in progress before this problem was identified and resolved.

Unfortunately, 13 of the catecholamine draws were unable to be analyzed due to insufficient volume or improper handling. An additional catecholamine sample was unable to be analyzed because the tube broke in the mail to the testing facility.

Additionally, c-reactive protein (CRP) was collected in this study. Willerson and Ridker (2004) used cutoffs of 1 mg/L for intermediate and 3 mg/L for high coronary artery disease risk; 3 mg/L is also listed as a reference value for high risk in the materials from South Bend Medical Foundation (n.d.-b). CRP has not been included in the traditional AL indices but has been proposed as an inflammatory mechanism linking depression with coronary artery disease (Kling et al., 2007) and
has been included in more recent large scale studies of AL (see Gruenewald, Seeman, Ryff, Karlamangla, & Singer, 2006).

Allostatic Load Index Construction. The theoretical notion of AL has gained immense popularity in the literature over the last decade. The best way to measure and construct an index of AL, however, is a matter of debate among researchers (Loucks, Juster, & Pruessner, 2008; Schulkin, 2004). In previous research using AL to predict mortality and decline in physical functioning in older adults, Seeman et al. (2001) used 10 indicators: systolic and diastolic blood pressure; waist-to-hip ratio; HDL cholesterol; ratio of total cholesterol to HDL; glycosylated hemoglobin; urinary cortisol, epinephrine, and norepinephrine excretion; and DHEA-S. Seeman and colleagues (2001) established AL cutoffs in their sample of 1,189 older adults by classifying the participants into quartiles for each of the 10 indicators. AL was then computed by summing the number of parameters for which the participant fell into the highest risk quartile. In this method, each marker is weighted equally.

Although this method, also referred to as elevated-risk-zone scoring (Singer, Ryff, & Seeman, 2004), is one of the most common ways of constructing an index of AL, it is not the only method for linking multiple biomarkers with hypothesized downstream effects. According to AL theory, even small amounts of dysregulation, if present across multiple systems, puts individuals at risk for health problems (Lupien et al., 2006). Elevated-risk-zone scoring may fail to account for low levels of dysregulation by using cutoffs for which each biomarker contributes either a 0 or a 1 to the overall score. Karlamangla and colleagues (Karlamangla, Singer, McEwen, Rowe, & Seeman, 2002) used canonical weight scoring to determine linear combinations of biomarkers that were related to linear combinations of change in physical and cognitive functioning. The canonical weights produced in these linear combinations are then used for scoring AL. Instead of using cutoffs, this method uses measured values.

30
(actually z-scores of these values so that all biomarkers are on a common scale) of the biomarkers to determine the respective contributions of each in predicting the outcome. It allows for identification of low values that also put individuals at risk; for example, low diastolic blood pressure was identified as a risk factor in this study (Karlamangla et al., 2002). Additionally, Karlamangla and colleagues found that a canonical weight scoring using only the hypothesized primary mediators (that is, the hormonal components of AL: epinephrine, norepinephrine, cortisol, and DHEA-S) produced a canonical correlation with later functional decline that was nearly as strong as found for the entire AL battery. This finding is an important contribution in determining which components of AL are particularly informative in predicting specific health outcomes.

An approach which is even more sensitive to the levels of the biomarkers and their combinations in contributing to risk is recursive partitioning. Gruenewald and colleagues (Gruenewald et al., 2006) used recursive partitioning (RP) to determine combinations of biomarkers that predicted mortality over a 12-year period. Indicators of immune activity, including c-reactive protein, were included in the battery for a total of 13 biomarkers. RP begins with a root node that contains the entire sample. All possible cutoff points on all predictor variables are then considered, each of which divides the sample into two groups. The optimal predictor is selected and the cutoff point at which the within-group variance on the outcome is minimized. This first step produces two child nodes. The tree-building process continues recursively using the same optimality principle for each “child” node, until it reaches a terminal node at which point no further splits occur. Often, the maximal tree possible is identified first and then smaller trees are examined by “pruning away” various branches of the maximal tree. These sets of trees are called “forests” and are examined together.
Gruenewald and colleagues constructed separate forests of RP trees for males and females because of previous research indicating gender differences in combinations of biomarkers as predictors of health outcomes. Only those biomarkers that are good splitters enter the pathways; therefore, the final trees will not necessarily include all the biomarkers collected. For males in the high risk pathway across multiple trees, immune and neuroendocrine (i.e., epinephrine and norepinephrine) biomarkers occurred together at elevated levels. For women at high risk across trees, a cluster of systolic blood pressure, c-reactive protein, hemoglobin A1c, and another immune function indicator (IL-6). RP analyses revealed the considerable variability in levels of particular biomarkers and which combinations led to risk. A hallmark of AL studies is collection of biomarkers across multiple systems to assess the possible cumulative impact of stress response induced disregulation. The results across the alternate methods for assessing AL risk point to the importance also attending to the contributions of these systems as clusters and the heterogeneity across subgroups in defining the particular biomarkers and levels which contribute to risk. Over the development of this study, it became apparent that the exploratory nature of the project offered the opportunity to examine different ways of indexing wear-and-tear.

The exploration of alternative conceptualizations of AL in this study is limited by two factors: comparable indicators and sample size. Nearly half the sample has missing data on epinephrine and norepinephrine, which excludes information on neuroendocrine markers which have been found to be important components (Gruenewald et al., 2006; Karlamangla et al., 2002). Cortisol, epinephrine, and norepinephrine have different concentrations in blood and urine, thus the reference cutoffs used in the traditional elevated risk-zone scoring are not appropriate. With these limitations, it is not appropriate to calculate the traditional AL elevated-risk zone scoring used by Seeman et al. (2001). Canonical weight and recursive partition-
ing techniques are interesting alternatives that could be informative in examining the relationship between biomarkers and the outcome of interest here, depression symptomatology; however, these techniques are not feasible due to the small sample size.

Despite these limitations, this study provides a unique opportunity to examine the relationship between stress exposure, appraisal, biomarkers of AL, and depression. Rather than summing up the number of remaining biomarkers for which an individual has exceeded the cutoff, a method was chosen that allow each theoretically-implied cluster of dysregulation to have its own regression weight. This model used biomarkers typical in AL assessments (excluding cortisol, epinephrine, and norepinephrine) as well as c-reactive protein and medical record reports of disease. Variables were grouped based on AL theory (Lupien et al., 2006, see Figure 1) into clusters of primary mediators, secondary outcomes, and tertiary outcomes. Although cutoff values are not ideal, they were used in this exploration as they have been validated in large, nationally representative samples.

*Primary Mediators:* With cortisol and catecholamine data unavailable, DHEA-S was used as the sole indicator of the chemical messengers released in allostasis. *Secondary Outcomes:* Systolic blood pressure, diastolic blood pressure, hemoglobin A1c, HDL, ratio of total cholesterol to HDL, and waist-to-hip ratio are components of the traditional AL index that were included in the secondary outcome cluster. C-reactive protein, as an indicator of inflammation and immune response (Crimmins, Vasunilashorn, Kim, & Alley, 2008; Lupien et al., 2006), has also been included in the secondary outcomes. Gruenewald and colleagues identified c-reactive protein as an important component of risk in their RP trees for females. As this sample is predominantly female, including c-reactive protein as a predictor may be especially informative. *Tertiary Outcomes:* Lupien et al. (2006) lists instances of actual car-
diovascular disease, severe cognitive decline, decreased physical capacity, and cancer as possible tertiary outcomes of adaptational wear-and-tear. Medical records were coded using a physical health measure used in population surveys and the NDHWB study (Belloc et al., 1971). From this measure, items indicating presence of high blood pressure, heart problems, stroke, diabetes, cancer, and stomach ulcer were selected. A sum of the number of diseases and disorders coded as present was used to create the tertiary outcomes variable.

2.4 Qualitative data.

In addition to the stress ratings produced by the LEDS, these in-depth interviews also contain data on the participant’s subjective experience of the stressors. In pilot work for this project as part of the NDHWB study, the LEDS interview was found to provide informative details about how older adults perceived the last year’s life events. This appraisal information is withheld in the LEDS ratings in order to objectively assess the severity of the event. The meaning of events for individuals, however, is also of interest because the way in which people tell their stories and understand their experiences may provide important clues and context for physiological and behavioral responses as well as depression status. To further understand participants’ perspectives on stress a companion interview was developed asking about pivotal events across the lifespan. For each event mentioned, participants are asked to “walk” the interviewer through the experience (What was it like for you [emotionally, physically, financially]? What happened next?, Imagine we interviewed you when it was happening, how would you describe it and its effect on you?, How is that like or different from the way you think and feel about it now?)

The LEDS and companion interview gave detailed information about the type and context of events to which the participants were exposed in the last year and
across their lives. Early in the data collection phase of the study, however, the research team realized that the information which would be most informative to the other components of the study would focus on participants’ own depictions of the stress process. The themes presented in the results section below emerged from these additional questions.

Supplementary questions were developed to gather data on three main areas. In order to learn more about responses to stressors, participants were asked how they can tell they are bothered or upset. Follow-up probes focused on whether the individuals noticed anything different about themselves in these situations, and describing what, if any, changes were. To explore what kind of strategies older adults used in these situations, they were asked what they do when they encounter something difficult. These responses were also probed for further detail and the outcomes of these methods. To understand adaptation and resolution from a narrative perspective, older adults were asked how they know that they are finished dealing with a problem. Again, respondents were probed for any possible changes or differences they noticed in themselves. Mindful of the many meanings of stress overviewed in the introduction, the questions used terms like difficulty and problem to orient the participants to challenging situations without complicating the questions and responses with the term “stress.”

The information from these supplementary questions was used to explore qualitative themes of the stress process in older adults. The actual analysis of the qualitative data is described in detail in the proposed analyses section. The data preparation is described in Appendix A. All interviews were transcribed verbatim by research assistants, following the standard lab protocol.
CHAPTER 3

RESULTS

3.1 Descriptive Statistics.

Descriptive statistics for each sample on the depression checklist and stress assessments are displayed in Table 3.1.
TABLE 3.1:

DESCRIPTIVE STATISTICS ON STRESS AND DEPRESSION VARIABLES BY SAMPLE.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>Outpatient</td>
<td>15</td>
<td>16.48</td>
<td>5.98</td>
<td>3.00</td>
<td>26.00</td>
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<tr>
<td></td>
<td>Community</td>
<td>16</td>
<td>5.49</td>
<td>4.81</td>
<td>0.00</td>
<td>17.59</td>
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<td>PSS</td>
<td>Outpatient</td>
<td>16</td>
<td>36.44</td>
<td>3.98</td>
<td>31.00</td>
<td>44.00</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>16</td>
<td>30.13</td>
<td>3.96</td>
<td>24.00</td>
<td>37.00</td>
</tr>
<tr>
<td>ELSI Total</td>
<td>Outpatient</td>
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<td>4.00</td>
<td>3.47</td>
<td>1.00</td>
<td>13.00</td>
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<tr>
<td>Events</td>
<td>Community</td>
<td>16</td>
<td>2.88</td>
<td>2.75</td>
<td>0.00</td>
<td>12.00</td>
</tr>
<tr>
<td>LEDS Total</td>
<td>Outpatient</td>
<td>16</td>
<td>3.06</td>
<td>2.72</td>
<td>0.00</td>
<td>9.00</td>
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<tr>
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<td>Community</td>
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<td>2.06</td>
<td>1.65</td>
<td>0.00</td>
<td>5.00</td>
</tr>
<tr>
<td>LEDS Severe</td>
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<td>0.19</td>
<td>0.54</td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
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<td>0.13</td>
<td>0.34</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>AL Primary</td>
<td>Outpatient</td>
<td>16</td>
<td>0.69</td>
<td>0.48</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Mediator</td>
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<td>0.50</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>AL Secondary</td>
<td>Outpatient</td>
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<td>2.00</td>
<td>1.21</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Outcome</td>
<td>Community</td>
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<td>1.94</td>
<td>1.29</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
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<td>1.75</td>
<td>1.13</td>
<td>0.00</td>
<td>4.00</td>
</tr>
<tr>
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</tbody>
</table>
Using the entire sample, correlations between the variables of interest are provided in Table 3.2.
TABLE 3.2:
CORRELATION MATRIX FOR STRESS AND DEPRESSION VARIABLES.

<table>
<thead>
<tr>
<th></th>
<th>GDS</th>
<th>PSS</th>
<th>ELSI Total Events</th>
<th>LEDS Total Events</th>
<th>LEDS Severe Events</th>
<th>AL Primary Mediators</th>
<th>AL Secondary Outcomes</th>
<th>AL Tertiary Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(31)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSS</td>
<td>0.74‡</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(31)</td>
<td>(32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELSI Total Events</td>
<td>0.29</td>
<td>0.43‡</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(31)</td>
<td>(32)</td>
<td>(32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEDS Total Events</td>
<td>0.30*</td>
<td>0.39‡</td>
<td>0.60‡</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(31)</td>
<td>(32)</td>
<td>(32)</td>
<td>(32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEDS Severe Events</td>
<td>0.26</td>
<td>0.19</td>
<td>0.30*</td>
<td>0.58‡</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL Primary Mediators</td>
<td>0.24</td>
<td>0.13</td>
<td>-0.11</td>
<td>-0.02</td>
<td>0.26</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL Secondary Outcomes</td>
<td>-0.20</td>
<td>0.07</td>
<td>0.29</td>
<td>0.10</td>
<td>-0.05</td>
<td>-0.18</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>AL Tertiary Outcomes</td>
<td>0.26</td>
<td>0.22</td>
<td>0.02</td>
<td>-0.17</td>
<td>-0.19</td>
<td>-0.12</td>
<td>0.11</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. *p < .05, †p < .01, ‡p < .001
Profiling the samples. One of the primary goals of this study was to profile the samples using the different assessments of stress. Given the small overall sample size, and even lower frequency of occurrence of severe events and MDD in individual cells, a contingency table analysis is not possible; however, the organization of the data in these tables provides a way to further profile the samples. Instead of displaying simple frequencies in the cells, pseudonyms are included in the tables in order to facilitate comparison with the synopses and themes in the qualitative results. Pseudonyms with a † symbol refer to outpatient participants. To ease visual comparison of the frequency of the groups within cells, community participants are clustered in the upper portion each cell; outpatient participants are listed in the lower portion of each cell.

Table 3.3 focuses on the environmental perspective on stress, depicting the samples by exposure to LEDS severe long-term contextual threat and SCID depression status. As is evident in Table 3.3, severe events are relatively rare occurrences in both samples. Tables 3.4, 3.5, and 3.6 represent a biological perspective on stress. Table 3.4 organizes the samples by level of AL primary mediator and depression status. More than half the overall sample (n = 21) had DHEA-S levels that were above the threshold for risk. Those in this primary mediator risk zone came from both the community and outpatient samples and represented all three levels of depression status. Table 3.5 displays the samples by level of AL secondary outcomes and depression status. This composite includes assessments of blood pressure, glucose control, cholesterol, waist-to-hip ratio, and inflammation. Again, neither group appears to be clearly more likely to have elevated levels of secondary outcomes. Similarly, number of secondary indicators was fairly evenly distributed across depression status. Table 3.6 shows the presence of AL tertiary outcomes and depression status across the samples. These were drawn from the medical records and reflected the

40
presence of physical disease and problems such as heart problems, stroke, diabetes, and cancer. Here, there is a slight indication that those with more health problems tended to also be part of the outpatient sample. Of those who had two or more indicators of AL tertiary outcomes (n = 10), seven were from the outpatient sample.
<table>
<thead>
<tr>
<th>LEDS Severe Events</th>
<th>No Depression</th>
<th>Subthreshold Depression</th>
<th>Major Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events = 0</td>
<td>Gertrude</td>
<td>Agnes Bernice</td>
<td>Betsy Ella</td>
</tr>
<tr>
<td></td>
<td>Erma</td>
<td>Inez Clifford</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harriett</td>
<td>Miriam Hazel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aida</td>
<td>Matilda Sadie</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beatrice†</td>
<td>Millie† Milton†</td>
<td>Myrtle† Missy† Ethel†</td>
</tr>
<tr>
<td></td>
<td>Thelma†</td>
<td>Claire† Adelaide†</td>
<td>Elaine† Celeste†</td>
</tr>
<tr>
<td>Events = 1</td>
<td>Mildred</td>
<td>Audrey</td>
<td>Mabel†</td>
</tr>
<tr>
<td>Events = 2</td>
<td></td>
<td></td>
<td>Annabelle†</td>
</tr>
</tbody>
</table>
TABLE 3.4:

DEPRESSION STATUS AND ALLOSTATIC LOAD PRIMARY MEDIATOR.

<table>
<thead>
<tr>
<th>AL Primary Mediator = 0</th>
<th>No Depression</th>
<th>Subthreshold Depression</th>
<th>Major Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL Primary Mediator = 1</td>
<td>No Depression</td>
<td>Subthreshold Depression</td>
<td>Major Depression</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No Depression</th>
<th>Subthreshold Depression</th>
<th>Major Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gertrude</td>
<td>Betsy</td>
<td>Elaine†</td>
</tr>
<tr>
<td>Sadie</td>
<td>Ella</td>
<td></td>
</tr>
<tr>
<td>Beatrice†</td>
<td>Millie†</td>
<td>Zelda†</td>
</tr>
<tr>
<td>Sadie</td>
<td>Audrey</td>
<td></td>
</tr>
<tr>
<td>Sadie</td>
<td>Laura†</td>
<td>Myrtle†</td>
</tr>
<tr>
<td>Sadie</td>
<td>Claire†</td>
<td>Missy†</td>
</tr>
<tr>
<td>Sadie</td>
<td>Adelaide†</td>
<td>Ethel†</td>
</tr>
<tr>
<td>Sadie</td>
<td>Adelaide†</td>
<td>Celeste†</td>
</tr>
</tbody>
</table>

† Indicates presence of the primary mediator.
### TABLE 3.5:

DEPRESSION STATUS AND ALLOSTATIC LOAD SECONDARY OUTCOME.

<table>
<thead>
<tr>
<th>AL Secondary Outcome = 0</th>
<th>No Depression</th>
<th>Subthreshold Depression</th>
<th>Major Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mildred Sadie</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL Secondary Outcome = 1</td>
<td>Agnes Aida Inez Audrey Matilda Beatrice† Adelaide†</td>
<td>Hortense† Laura†</td>
<td>Myrtle† Celeste† Elaine†</td>
</tr>
<tr>
<td>Gertrude Claire† Harriett Miriam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL Secondary Outcome = 3</td>
<td>Clifford Hazel Milton†</td>
<td>Betsy Ella Zelda†</td>
<td></td>
</tr>
<tr>
<td>Bernice Erma Millie† Thelma†</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL Secondary Outcome = 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mabel†</td>
</tr>
</tbody>
</table>
TABLE 3.6:

DEPRESSION STATUS AND ALLOSTATIC LOAD TERTIARY OUTCOME.

<table>
<thead>
<tr>
<th>AL Tertiary Outcome</th>
<th>No Depression</th>
<th>Subthreshold Depression</th>
<th>Major Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Audrey Hazel Aida Clifford</td>
<td>Ella</td>
<td>Ethel† Annabelle†</td>
</tr>
<tr>
<td>1</td>
<td>Gertrude Mildred Bernice Erma Inez Miriam</td>
<td>Zelda†</td>
<td>Myrtle† Celeste†</td>
</tr>
<tr>
<td>2</td>
<td>Agnes Harriett Sadie Millie† Milton† Thelma†</td>
<td>Hortense† Laura†</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Betsy</td>
<td>Mabel† Missy†</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>Elaine†</td>
</tr>
</tbody>
</table>
In general, these tables replicate the aggregate correlations displayed in Table 3.2. Although the tables use SCID depression status and the correlations reflect relationships with GDS depression symptoms, both show no clear relationships between primary and secondary AL indicators and depression. This is also apparent for LEDS severe events in Table 3.3 and the correlations. The relationship between tertiary indicators of potential stress-related wear-and-tear and depression, however, show a possible clustering in the outpatient group (which has a higher overall mean depression score, see Table 3.1), but this is not reflected in the correlations. These exploratory analyses help profile the two samples by examining the stress indicators separately. The quantitative analyses in Section 3.2.2 below formally use these different stress indicators together as predictors of depression symptoms.

3.2 Using Environmental, Psychological, and Biological Stress Measures as Predictors of Depression in Older Adults: Quantitative analyses.

3.2.1 Comparison of Life Event Measures.

Because the LEDS consensus ratings are designed to separate actual events from psychopathology and checklist reports have been inflated by depressive symptoms (L. H. Cohen et al., 1988) as well as by the misunderstanding of items (Monroe, 2008), it was expected that the LEDS interview and checklist would produce different life event totals for a given individual. These differential totals were explored. Correlational analyses were conducted comparing number of life events from the checklist and LEDS assessments (see Table 4). Number of events endorsed on the checklist was significantly correlated with total number of events identified in the LEDS interview \(r = 0.60, p < 0.01\). Although the LEDS was not designed for older adults and sets a high threshold for what meets criteria for rating as an event, there was a similar rank ordering of individuals by number of events they reported in the checklist and the interview.
One of the main reasons for using the LEDS is that not all events are equal in their threat. Sum scores of events weight all events equally without taking into account possible differences in the severity of the events. Severe events have been an important predictor of depression onset in previous studies (Brown & Harris, 1978; Brown, 1989) and the frequency of severe events was also calculated for the present purposes. Number of LEDS severe events was strongly related to total number of LEDS events ($r = 0.58, p < 0.01$) and somewhat more weakly related to number of events from the checklist ($r = 0.30, p < 0.09$). Only four people (three had one severe event, one had two severe events in the last year) in the study reported events that met LEDS criteria for severe long term contextual threat.

3.2.2 Environmental, Biological, and Psychological Stress and Depression.

Logistic regression analyses were proposed to determine probability of depression status, given level on each of the stress variables (# of life events, level of perceived stress, AL score). Hypotheses for each predictor were proposed. Environmental: Reporting more stressful life events was expected to predict being depressed. Biological: Based on the inflammatory responses and other cardiac problems with which depression has been linked (Elovainio et al., 2006; Miller & Blackwell, 2006), higher allostatic load should be related to higher probability of being depressed. Psychological: Depressed elders were expected to report significantly higher levels of perceived stress (Monroe & Kelley, 1995). As the focus of the overall study was to discover how these different perspectives may relate to each other and inform how stress is related to depression, a priori predictions were not formed regarding which variables would produce larger coefficients (provide more certain likelihood of being depressed) The overall model, however, in which each of the perspectives predicted depression status was expected to be significant.
Given the difficulties in recruiting the outpatient sample, in particular the low number of individuals who met criteria for MDD, categorical data analyses were not feasible. The inclusion of the GDS as a continuous measure of depression, which has acceptable levels of sensitivity and specificity for MDD in this sample, offers an alternative route to test the relationship between the stress variables and depression symptoms.

The strong correlation \( r = .74, p < 0.01 \) between the GDS and the measure of perceived stress, the PSS, indicates substantial redundancy in the constructs. Sample questions from the GDS include “Do you frequently get upset over little things?” and “Do you feel restless and fidgety?”; Similar questions from the PSS include “How often have you been upset because of something that happened unexpectedly?” and “How often have you felt nervous and ‘stressed?’” Including PSS in any regression model for depression resulted in perceived stress as the only significant predictor; it accounts for much of the reliable variance in depression symptoms. Therefore, to examine any contribution of life events and AL, regression analyses are reported for models that include life event exposure and AL (primary, secondary, and tertiary indicators), but do not include perceived stress.

As total number of life events reported on the checklist and rated in the LEDS (e.g., total severe and non-severe LEDS events) were correlated and should represent the same theoretical construct of environmental exposure to stressful events, separate analyses were conducted to evaluate the contribution of number of life events and AL in predicting level of depression symptoms. The overall model regressing depression on number of checklist events (i.e., ELSI), primary mediators, secondary outcomes, and tertiary outcomes was significant, \( F(4, 30) = 3.18, p = 0.03 \). Number of events, secondary outcomes, and tertiary outcomes were significant predictors (see Table 3.7). Similarly, the overall model using total number of LEDS events and
the AL indicators was also significant, \(F(4, 30) = 3.08, p = 0.03\). Again, number of events and tertiary effects were significant predictors of depression (see Table 3.8). The other components of the AL cascade, primary mediators and secondary outcomes, were not significant in this model.

**TABLE 3.7:**

<table>
<thead>
<tr>
<th>Variable</th>
<th>(B)</th>
<th>(SE) (B)</th>
<th>(\beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5.27</td>
<td>3.60</td>
<td>0</td>
</tr>
<tr>
<td>ELSI Total</td>
<td>1.03</td>
<td>0.42</td>
<td>.42(\dagger)</td>
</tr>
<tr>
<td>AL Primary Mediator</td>
<td>4.28</td>
<td>2.60</td>
<td>.27</td>
</tr>
<tr>
<td>AL Secondary Outcome</td>
<td>-1.91</td>
<td>1.06</td>
<td>-.31*</td>
</tr>
<tr>
<td>AL Tertiary Outcome</td>
<td>2.22</td>
<td>1.15</td>
<td>.31*</td>
</tr>
</tbody>
</table>

Note. \(R^2 = .33;\) Adjusted \(R^2 = .23. \ast p < .10, \dagger p < .05\)

Secondary outcomes appeared as a significant predictor in the model using ELSI life events and AL composites, but this effect was not significant in the model with LEDS events. Examining the correlation matrix again provides a possible explanation for this difference. With the small sample, none of the correlations between secondary outcomes and other variables was significant. Focusing on the magnitude of these relationships, however, shows that secondary outcomes and ELSI life events have a stronger relationship \((r = .29)\) than that of secondary outcomes and LEDS events \((r = .10)\). Additionally, secondary outcomes are inversely related \((r = -.19)\) with the outcome of interest, depression symptoms measured by the
TABLE 3.8:

SUMMARY OF REGRESSION ANALYSIS FOR
LEDS LIFE EVENTS AND AL INDICATORS
PREDICTING DEPRESSION SYMPTOMATOLOGY.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE\ B$</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.98</td>
<td>3.81</td>
<td>0</td>
</tr>
<tr>
<td>LEDS Total</td>
<td>1.32</td>
<td>0.55</td>
<td>.40†</td>
</tr>
<tr>
<td>AL Primary Mediator</td>
<td>3.94</td>
<td>2.60</td>
<td>.24</td>
</tr>
<tr>
<td>AL Secondary Outcome</td>
<td>-1.42</td>
<td>1.03</td>
<td>-.23*</td>
</tr>
<tr>
<td>AL Tertiary Outcome</td>
<td>2.70</td>
<td>1.18</td>
<td>.38*</td>
</tr>
</tbody>
</table>

Note. $R^2 = .32$; Adjusted $R^2 = .22$. *$p < .10$, †$p < .05$

GDS; both ELSI and LEDS are positively correlated with GDS. Because of this positive relationship between ELSI and secondary outcomes and an opposite (i.e., positive for ELSI, negative for secondary effects) relationship with the outcome, more variance is explained. This is similar to the more familiar situation in regression in which two predictors are negatively correlated with each other but both are positively related to the outcome. The secondary outcomes statistically significant result may be detectable because secondary outcomes are more strongly correlated with ELSI than with LEDS.

Severe events have been important predictors of depression in the literature and were also tested as indicators of environmental exposure to stress. The overall model with severe events and components of AL was not significant, ($F(4, 30) = 2.02$, $p = 0.12$). A significant relationship between severe events and depression was not evident in the correlational analyses nor in a visual inspection of the contingency-style table. Given the relatively few instances of severe events, there may have
been insufficient power to detect any effect of exposure to events high in long term contextual threat in the current study.

3.3 Understanding the Meaning of Stress: Qualitative analyses.

As a bridge between the quantitative and qualitative components of the study, the synopses developed from the LEDS interview are included in Appendix B. These synopses provide brief profiles of the individuals, their contexts, and the events and difficulties of the last year. Profiles such as these add to the three-dimensionality of the participants in the study, highlighting both the variability and similarity both within and across the outpatient and community samples. Additionally, they provide a reference linking the results of the regression analyses (testing the contributions of events and AL indicators in predicting depression symptoms) with the qualitative narratives (describing the lived experience of the stress process).

**Emergent Themes in Stress Interviews.** Qualitative studies tend to be small in sample size but rich in data, samples of 25 or more are considered relatively large in qualitative work (Patton, 2002). Subjective accounts of stress will be analyzed using the constant comparative approach (Lincoln & Guba, 1985; Maykut & Morehouse, 1994); these themes presented here draw from the descriptions of the stress process. The focus of inquiry (Maykut & Morehouse, 1994) in this aspect of the study was to understand the experience of stress (physically, emotionally, cognitively, behaviorally), what dealing with a stressor means, and how participants know that they are finished dealing with a stressor.

Qualitative research has been criticized for vague descriptions of how the results are obtained. Taylor and Bogdan (1984) address this issue directly, going so far as to state that the researcher “owes it to[the] readers to explain how[she or he] collected and interpreted...[the] data” (p. 150). Transparency in methods has been
encouraged as a way of “increasing the trustworthiness of [the]...work and people’s knowledge of qualitative research” (Maykut & Morehouse, 1994, p. 156).

Another consideration in evaluating qualitative research is trustworthiness. Working with a research team is one of the key provisions for ensuring trustworthiness in a qualitative study (Maykut & Morehouse, 1994). Lincoln and Guba (1985) suggest that team members work to “keep each other honest” in the analysis, preventing each other from putting patterns and themes upon the data rather than letting them emerge from the data in the process of analysis. Description of the team is provided in Appendix A.

*Team analysis using the constant comparative method.* After unitizing and separating the units of meaning into cards, we met to further discuss our plans for analysis and the project. Across several meetings we developed and stated our focus of inquiry, ground rules, and discovery list. Maykut and Morehouse (1994) recommend writing each of these on a large piece of paper and posting them in the research room. The focus of inquiry serves as a reminder of the purpose of the study and analysis and can help to keep the analysis on track. Together team members will generate the ground rules for the collaborative work. Some ground rules that appear frequently in research teams are “come to each meeting on time and prepared,” “speak up - don’t just agree,” and “keep a sense of humor.” The discovery list is produced from the preliminary ideas of recurring or important themes or directions in the data. These ideas come from the team’s experience with listening to the recordings, transcribing and taking notes on the interviews, and reading the transcripts. The discovery list is “a beginning effort at stating what is in the data” (Maykut & Morehouse, 1994, p. 133). It was also posted with the focus of inquiry and ground rules in the research room.

Maykut and Morehouse (1994) recommend a “wallpaper approach” in doing data
analysis, especially when the researcher is working with a team. This “wallpapering” is a visual approach in which the researcher is literally surrounded by and immersed in the data. Large paper, markers, additional index cards, sticky notes, and masking tape are used to visually organize the cards, display the categories, and record the process on the walls of the research room. A room belonging to the psychology department was used as the research room. This location provided sufficient wall space to display and organize the data using the constant comparative method. It also ensured a secure space for the materials between analysis meetings; thus, avoiding the hassle and potential loss of data and time inherent in packing up, moving, and storing the data and materials after research meetings.

Using the constant comparative method introduced by Glaser and Strauss (1967) and elaborated by Lincoln and Guba (1985), we grouped cards into categories beginning first with tentative areas from our discovery list and then grouping cards into categories emerging directly from the data. Early in the process, cards were grouped into categories using “looks like/feels like” criteria (Lincoln & Guba, 1985). As categories reached critical size, about six cards, we generated rules for inclusion that describe the categories that were used to decide whether subsequent cards fit the category. Positive and negative instances of a rule were examined. Negative cases were also important, providing a reminder of the diversity of experiences and perceptions. Throughout the process, rules were revised to better fit the cards; cards that did not fit the other cards and rule of a category were moved to other categories where they fit, used to generate a new category, noted as a negative case, or assigned to the miscellaneous pile for later review. Rules for inclusion were stated as propositions, “conveying the meaning of the data cards” (Maykut & Morehouse, 1994, p. 139) in a category. When all the cards were grouped into categories and those placed in the miscellaneous pile have been reread, the research team carefully
examined the propositional statements, looking for outcome propositions that could
stand alone and “those that could be combined to describe salient relationships and
patterns” (P. S. Maykut, personal communication, December 17, 2003). Through
the process of constant comparison we moved back and forth between the new units
of meaning and the existing categories, rules, themes, and conceptual framework.
We carefully examined the interviews for examples that confirm, disconfirm, and
represent entirely new ideas.

3.3.1 What stress feels like: How older adults notice they are upset.

When faced with a problem, some older adults report physical reactions. These
participants reported being able to tell that they were upset in their bodies. Thelma
explained that she could tell when she felt “agitated” by “that tight feeling in my
chest” (p. 7). Elaine also could tell she was upset because her body was very
active, “I become antsy and fidgety, and can’t sit still” (p. 4). This agitation was
internal for Millie, she said “sometimes...I feel like all my skin exploding and I’m
jumping out of my skin” (p. 65). This agitation evidently was not observable from
the outside, Millie’s husband would tease her, “When you go around saying you’re
jumping out of your skin...I’ve never seen anybody do that - how do you that?” (p.
65).

Others also noticed their physical reactions, but had been able to modify them.
Myrtle reported that she would “get shaky for a while” (p. 59). Since therapy, she
reports that she is better able to deal with problems and her response to them, “I
used to just go to pieces, and I don’t shake as much as I used to, I’m getting a hold
on it. I don’t get as upset” (p. 59). Myrtle’s friends and family even noticed the

1Names used throughout are pseudonyms. Often, in qualitative studies, participants are referred
to by pseudonyms rather than ID in order to keep the researcher and reader mindful of the three-
dimensional person behind the data. To aid comparison, participants from the outpatient sample
can be identified by the † symbol following their pseudonym.
change, they told her that she used to shake “all the time” but not as much now (p. 59). Ella said “sometimes I catch myself, you tighten up, you’re not breathing, then you’re not thinking clear” (p. 3). Having noticed that she holds her breath and tenses her body, Ella reported that the first thing she does when encountering a difficulty is to think to herself, “am I breathing? Because if you take deep breaths it kind of helps take the stress” (p. 3). Ella was able to use her physical reaction as a cue and even noticed that it may be interfering with her ability to deal with the situation.

Other participants reported responses that were more cognitive, emotional, or behavioral. When faced with a problem, some older adults described worry and rumination. Harriett reported feeling “uptight” and when probed, explained that this meant “I worry about things that I can’t do anything about” (p. 47). Bernice expressed worry as well, “I just worry that things aren’t going to work out right I’m thinking about what’s going to happen” (p. 47). She said that a relative had pointed out to her “you just worry, worry, worry” and that she should “just quit that” (p. 48). Bernice responded, “Well, I can’t. It’s just natural for me to worry” (p. 48). Sadie reported that when something difficult happened, “I usually stew about it for a day” (p. 3). For her, stewing meant not talking about the problem, but thinking on it (p. 3). Millie† also mentioned “stewing in her juices” (p. 65) when she was upset. When asked what that meant, she could not describe it exactly, but said “it’s internal.”

Some described emotional reactions focusing on the nervousness, moodiness, and frustration they experienced. Bernice reported getting “very nervous” (p. 45) when she encountered a difficulty. Agnes’s said that her husband could notice a change in her, “[he] will say, ‘you’re getting moody’and I guess I’m thinking a lot” (p. 22). She reported that she could tell when something was bothering him as well. Betsy
reported getting “frustrated and angered” (p. 1), whereas Aida explained that “I don’t do anything different, I just get upset” (p. 13).

For others, being upset was evident in their behaviors. Agnes said she could “sometimes, [but] not always” (p. 22) tell that she was upset because she was not doing her hobbies. She reported finding herself just sitting more, not reading or doing activities. Mildred said that, especially since the death of her granddaughter a year ago, when she encountered a difficulty she would cry (p. 5). Milton’s† reactions were not of disengagement or crying, but of acting out, “blowing my stack once in a while” (p. 71). He gave the example of an interaction in which he believed the leader of his club was overly critical of members and did not manage the group well. He described an event,

I just kind of blew my stack and I threw my doggone book across the dog-gone room...and he said, ‘I don’t appreciate you throwing your [book].’ I said, ‘too bad.’ But I shouldn’t have, I realize now I shouldn’t [have] blew my stack (p. 71).

He realized that this reaction was not ideal and, in the later theme of dealing with interpersonal conflict, worked to find a better way to resolve the issue.

3.3.2 Dealing with a stressor: Older adults’ describe their methods.

When asked what they do to deal with a difficulty, some older adults mentioned seeking help from others. For some, this meant simply talking to someone (Harriett, Hortense†, Agnes, Bernice, Hazel, Beatrice†). Miriam elaborated, saying, “if it’s something that would be a burden emotionally, I probably would get rid of it by talking about it to [my friend]” (p. 6). Her use of words like “burden” and “get rid of it” suggest that problems can be like weights to carry until the person can find a way to relieve the strain. Bernice mentioned having “someone to vent to” (p. 45) as important. Ella said she would use her husband as a sounding board. Like the others mentioned above, Ella employs a somewhat unidirectional purpose in seeking
an audience to talk to. In her discussion of her husband as a “sounding board,” she
does not mention that he says anything or that she takes his advice. She and the
others are looking to express their feelings and ideas. Help from others also came
in the form of information (also Sadie, Ella), Thelma† said she’d “seek help from
somebody who is knowledgeable about what I’m dealing with” (p. 7). Betsy echoed
this, “if it’s something that I don’t feel that I have enough information about, and
I think someone else may know more about it than I do, I have no problem asking”
(p.2). She reported having a friend who was very knowledgeable and who she said
“usually they know how to tell me to take care of it. And then that always makes
me feel better” (p. 2).

Aid from others, however, was not always someone else giving information about
what to do about the situation; instead, some supporters helped participants in how
to think about it. Bernice would talk to her friend and “try to understand what
she is telling me and then I try to see it that way” (p. 47); she said that her friend
would help her “see” the problem (p. 45). Harriett reported that her husband gave
her perspective on the issue, “‘Is there anything you can do about it? No, well
then you need to move on.’ And it takes a day or two and then I’m fine” (p. 47).
Both Bernice and Harriett said that talking to their supporters helped calm them.
Bernice “I would call [her] and talk to her and she would calm me down” (p. 45-46).
Harriett “when I get uptight about something he’s good to listen. He keeps me kind
of calm” (p. 45); “my husband is so even keeled that he can kind of keep me in
line” (p. 47).

Rather than going to others with a problem, some individuals relied on self-
initiated strategies. Matilda said, “I usually work it out myself” (p. 7); “I’m not
one to take it to somebody else and say ‘what would you do in this situation?’”
(p. 7). Similarly, although Ella would seek information from others when necessary
and used her husband as a sounding board, she preferred to “see it through” herself (p.10, 12). She had found that bringing others into the situation could just make it more complicated, “Involving other people in things, sometimes it gets convoluted and then you get their emotions and you get them upset [about] something that doesn’t really have anything to do with them. And I don’t like to do that either” (p. 12).

Some older adults said that they dealt with problems on their own by thinking about the issue from all sides. They used visual, perspective-taking language to describe this process. Matilda described going “all around the fence” to determine possible outcomes of every choice (p.7). Ella said she tries to “look at it from all sides” (p.4). Elaine† reported “[I] think it through and decide on which path to take and which way I was going to tackle the problem” (p. 4).

For two individuals, their method involved being their own psychiatrists. Zelda† used journaling in the evening as a way of “getting it out” (p. 29).

In fact, I actually do it in a format that I’ve seen my psychiatrist do. I let the psychiatrist say what I think the psychiatrist...would...It makes it a fun way to do it and takes some pressure off of it. But when I go back and I read, sometimes I’ll think, ‘Why did I write that? Where was I at that time that I felt like that?” (p. 29).

In a slightly different way, Miriam counseled herself through difficulties.

One of things is to stand in front of a mirror and talk to myself, if I talk to myself, I can lie to myself, if I do it quietly, you know, talk in my head. But if I talk to that person in the mirror and I hear what I’m saying then I cannot lie because I recognize that lie. And then I have to say ‘Why, why do you feel that way?’ [The] best psychiatrist in the world is the person in the mirror (p. 2).

For these women, the “exchange” involved both the venting about the problem and feedback about their own reaction to it that is evident in some of the social support themes. The support, however, was from the individuals themselves and not an external confidant. Interestingly, both of these women referred to this role.
as a psychiatrist, rather than that of a friend or family member. In both cases, they report probing for the reasons behind the feelings, as would occur in a therapy setting. Only two individuals mentioned this method but the striking similarity in their descriptions merits attention as a technique which blurs the line between social support and self-initiated themes.

Other self-initiated methods mentioned included breathing exercises (Adelaide†), self help books (Audrey), and dwelling on previous good and bad times in life, possibly as a comparison to the current situation (Audrey). For other individuals, instead of mentioning a primary method for dealing with a difficulty, they described a process. Claire† said, “I read and not think about it for a while and then when the pain lessens a bit then I think about it and I come to a conclusion. And I do a little praying, a little talking to myself” (p. 7). Instead of taking time away, Myrtle† reported “giving into it for a little bit and [getting] upset and shaky” (p. 59) and then “maybe cry a little bit, and then talk to [friends], get a cup of coffee and sit in the recliner” with her cats on her lap (p. 59).

Multiple older adults (Thelma† Mabel† Mildred, Inez, Harriett, Laura†) listed praying as their method for dealing with a difficulty. Mildred said that she prays all the time, “even in the small things...even to the simplest thing I can’t find” (p. 6). Thelma† spoke in detail about why she turns to prayer in difficult times,

I believe that God actually helps me. And I believe that I can trust that. If I sincerely ask for something that I really need, or really want, or if I’m depressed, or facing a situation where I don’t want to go there. I ask God to help me. Give me the words, give me the strength, give me the courage and it happens in some way or another. I trust in that a whole lot (p. 9).

Similarly, Mabel† also said that prayer strengthened her (p. 60). Inez said for situations she could not handle on her own, she says a prayer “and God will take of it...All you [need] to do is just utter a little prayer and somewhere along the way, he’s right beside me. And he takes care of me” (p. 51). She found praying to make
the situation more manageable, “saying my prayer makes it easier for me to deal with it. Then it’s not such a big deal” (Inez, p. 52). Asked if she felt different after her prayer, Inez said “You betcha...I don’t know how I want to say it, you have a softer feeling, just peace all over” (p. 52).

For some older adults, dealing with problems meant acceptance (Zelda† Mabel† Erma, 0228). Some used words like letting go to describe acceptance. Zelda† explained, “there’s so much about this that’s not in my hands that I really have to just let some things happen and then deal with them” (p. 72). She went on, “we need to learn to accept what it is and really do the best with what we’ve got” (p. 81). Erma released herself from the situation by turning to her faith, “I let go and let God” (p. 49). Her language emphasized the more passive aspects of acceptance, “it does go away eventually, but you can’t always just feel I’m going to make this happen” (p. 51). For Ella, having the situation resolved, regardless of the outcome, was the important thing: “sometimes you have to accept things not being quite the outcome that you chose, but at least it’s resolved” (p. 4). Aida expressed a general philosophy of acceptance - “can’t do anything about it. I could be worse off” (p. 9), she continued, “you can’t do anything, I mean I’m not saying that I don’t worry about it sometimes” (p. 11). When asked what he does when faced with a problem, Clifford responded, “actually, nothing. More or less just live with it...just let it cool down itself” (p. 27).

Rather than engaging the problem or pursuing help, some older adults reported avoiding the issue (Thelma† Betsy, Myrtle† Missy†). When asked what they do when faced with a difficulty, these use words that imply distancing themselves from the problem. The intent here seems different from that described in the theme of acceptance. In acceptance, the individuals appear to have evaluated the problem and determined that they do not have the resources to alter it; instead they have
decided to accept the situation. By altering their view of the situation from a problem to be engaged to an accepted state, they have reached a resolution.

In contrast, individuals in the avoidance theme speak of actively trying to escape from the problem. Thelma† said that in a difficult situation, she’d “want to escape that problem” (p. 8). Annabelle† said she typically “ignores it, or just curls up and goes to sleep. Make it go away” (p. 98), but continued, that “nothing’s going to go away that easily” (p. 98). She realizes that the problem will not be resolved when she wakes up; she will have to find a way to deal with it then or continue avoiding it. Myrtle† seemed to understand that the problem would not go away, but also needed to take some time away from it, “If I don’t feel like working them through, I get a cup of coffee and sit on it and forget about it. I can’t do anything about it right then” (p. 60). Betsy also mentioned that sometimes it was best just to get away, “when things aren’t working, I have no problem distancing myself” (p. 3).

Some reported distractions to distance themselves from the problem with other activities. Adelaide† reported getting out of the house “If I’m thinking...I’m going to get depressed again, and that hasn’t happened for a while. I would go to the grocery store. Go to Kohls, go to Walmart and being around people and looking at things and buying something and then I come home and I’d be ok. Just get away from the house” (p. 9). Betsy said she tried to do things like go to a movie or read, activities that make her happy when she gets “down” (p. 2). Ethel† said she had “to do something” when she was worried or unable to sleep. She talked repeatedly about doing puzzles, going for walks, or reorganizing her home when she was bothered.

In contrast to the ideas of accepting a problem or avoiding it, for two women solving a problem meant pursuing it to the end. Ella, in particular, used metaphors to express their persistence. One of Ella’s friends said she was like “a dog with a
bonewon’t let go of it until [she] knows it’s safe to lay it down” (p. 5) when she was dealing with something. She said she would “grind in [her] heels about how some things are going to be” (p. 4). She gave examples of a problem where she didn’t want to “rock the boat,” but in the end was willing to ”pay the price” to get the solution; “until it was done, I just can’t let up” (p. 5). As noted in the acceptance theme, Ella recognized that situations do not always turn out the way she wants, “but at least you work through it and you stick with it to the end” (p. 4). She explained, “I just try to exhaust every possibility” (p. 4).

Erma emphasized pursuing other options as well, “I don’t ignore the problem. I just [think], well, there’s a better way to handling the problem. And I ask God for the better way” (p. 50). She also gave an example of a problem, which she referred to as an obstacle, in which she learned “if this doesn’t work for you, let’s try another way” (p. 49-50). She explained that it was not that she kept “building on” a problem, but was focused on finding another way to a solution. She taught her children this persistence as well, “don’t let anyone tell you no” (p. 49).

When trying to decide how to deal with a problem, some replied that all a person can do is make a decision and hope it’s the right one. For some, this is a tentative decision to set the process in motion and see what happens. Zelda† explains, “you have choices that you can make and hopefully they’re the right ones, but if they’re not then you don’t do it again, you try something else” (p. 72). She had struggled with trying to figure out what to do and came to the conclusion “all I can do is try to make the decisions that I need to make and see what happens” (p. 72). Others were more firm, just make a decision and live with it. Myrtle† gave this as advice to her husband as well, “Make a decision, right or wrong, make it. No more of this ’if, could’ve, should’ve, would’ve - do it!’ And that’s the attitude I’ve taken. If it’s wrong, oh well, it’s wrong” (p. 20). Matilda was similar, she thinks about
the situation from lots of angles and “then I don’t change from it. I stick with it. Whatever that decision worked out to be, that’s what I’m going to stay at” (p. 8). She called herself stubborn and said “I don’t say, ’well, why didn’t I this, why didn’t I that?’ Too late...it’s not worth the time” (p. 8-9). Claire also said she tended to just make a decision and stick with it “if it’s a bad decision I still have to live with it” (p. 7), “for the most part, I stay with that decision unless it really bites me in the ass and then I have to make another one but for the most part I haven’t had to that...I have been able to live with my decisions” (p. 9).

For two people, the difficulty in dealing with a problem was deciding on the desired outcome. They used traveling and motion words and said they could not make a plan or set it into motion because they did not know where they were going.

I can’t see a good outcome. I can see a good outcome once things are settled, then I know, at least I know to a degree something permanent, or semi-permanent, nothing’s permanent - I gave up on that...Usually you have a goal, you have an end place in mind, so you know what that picture is. Now I can go that way and get to that picture, I can climb under here, I can go around there and go that way, but that’s the destination. I know the destination. If you don’t have that, you don’t know where you’re going (Zelda p. 72).

Zelda could not decide what she wanted as an outcome, until that was decided she could not make a plan of how to make it happen. Elaine was struggling with retirement. Although she had retired several years ago, the early part was exciting with all the new features of finding an apartment and pursuing her own interests. Now, the novelty had faded and she was frustrated with her lack of interest and motivation.

I’ve had an interesting life, but that’s all been in the past. And now I’m coping with what’s going on next, that’s what I have to decide on, how I’m going to live every day. (Elaine p. 6).

Interestingly, one of the more common difficulties that participants brought up and described in detail was conflict with others. Specific to interpersonal problems,
these older adults described confronting the issue by talking it out or resolving it with the person. Hortense spoke in detail about this, “if something is bothering me, or someone is bothering me, I confront them and we talk about it. And then I feel at peace” (p. 42). She described calling her sister-in-law and a friend when she was upset by an interaction between them that “didn’t go over well” and discussing it together (p.43). Dealing with the problem was important to Hortense “because I can’t live with hurting someone or them hurting me. And thank God that I can talk it over with these people” (p. 43).

Milton disagreed with the management methods of the leader of his club. Specifically, having spent his career as a store manager, he believed there were better ways of giving feedback. It was very upsetting to him that the leader would critique members in front of the entire group. Although Milton reported “blowing his top” in one of his interactions with the leader, he had developed another way of dealing with the problem. Milton spoke with his son about the problem and together they worked out a plan for how to confront the leader. They had scripted what Milton would say,

'[name of leader],’ pause, ‘I realize I’m not perfect. But I don’t think you really gain the respect of our members and you’re a paid member of our staff by criticizing us in public...That, however, does not mean that I don’t have respect for your...talent.’

He explained that he was going to tell him more, but his son told him to pause and let the leader respond. If he responds, then Milton can reply “[name of leader], I was a store manager for 38 years and we were taught to criticize people in private and compliment them publicly” (p.73). Milton sought support from his son and worked with him to make a plan of how to confront the problem.

Miriam explained how she dealt with interpersonal conflict by using the interviewers in her example,
If you and I were going to have a problem, if you said something that hurt my feelings. I’m not going to hold on to that and let it eat away at me and...tell this one and tell that one. No, if it bothers me, if it’s upsetting to me and your friendship is important or our relationship is important, I’m going to come to you and say, I have to talk to you about something and then we talk about it and it’s gone (p. 7).

For Miriam, engaging the other person about the problem was important. She did not want to ”hold on to” the problem, nor did she want to allow it to “eat away” at her. These phrases are reminiscent of the ongoing regulation involving failure to shut-off the response as well as the potential allostatic load damage that may occur from prolonged activation. Across these quotes, the participants want to engage the other person in order to express how the problem affects them and then come to a resolution. Betsy expressed a similar sentiment in her ongoing dealings with an insurance company, “when I was able to reach the person and make some kind of settlement that makes me satisfiedIt’s when they’re avoiding me and not trying to take care of the problem, it’s frustrating” (p. 2). Until she can get the other side to engage, Betsy is to some extent, in Miriam’s words, “holding on to” the problem and can’t move on. She explained, “once I talk to them and I figure out what we’re doing, I can do a plan and then I can get my plan going and figure out how to take care of it...That satisfies me” (Betsy, p. 2).

A negative case of this theme of confronting and engaging is Millie’s story of a recent argument with her husband. She explained that she “was giving him a hard time about something and I just walked away because I wasn’t getting anywhere. There was just no point” (p. 65). This counterexample may be informative in selecting whether and when to confront someone. In the midst of her anger, Millie decided that pursuing the conversation further then was not going to resolve it. Instead, she decided to walk away. She did not explain whether she and her husband talked about the issue later. If it was not an important issue to her, disengaging
rather than escalating in her response to it may have been adaptive. Miriam echoed something similar, which also seemed to fit more as a negative case of engaging until the end theme rather than the ideas of avoidance or accepting it. She explained,

   I don’t have a problem letting go...I just don’t have to hang on to bad, upsetting things. Let it go. I tell my friends sometimes that I’ve gotten through life by saying ‘if somebody has to be upset, it might as well be the other person.’...You know, it keeps me healthy. Whether it’s right or wrong, it keeps me healthy. (Miriam, p. 7).

She used images that evoked releasing the problem. In a subtle way, this phrasing acknowledges that the problem exists (i.e., not avoiding it), but places the responsibility for adjustment outside herself (i.e., not acceptance). Miriam realizes that this solution may have its problems, but believes that letting go keeps her healthy. What she describes may be an example of the ability to turn off the allostatic responses which, if maintained for too long, may cause physical damage. The notion of when to stop responding to a stressor is developed further in the next set of themes.

3.3.3 Knowing it is over: Older adults determine when to stop dealing with a stressor.

   Of particular interest was whether older adults could identify ways in which their bodies or thoughts told them that they were finished dealing with a problem. Although several described ways of telling that they were upset by their physical reactions, only one identified a physical way of knowing that the problem had passed. Millie responded, “My body tells me...I’m just relaxed again” (p. 65-66). Additionally, although busy minds also appeared as a theme in the discussion of how older adults know that they are bothered, only a few people mentioned something similar for resolution. Audrey explained that a person knows that she or he is done dealing with something because “you don’t ever dream about it anymore” (p. 68). Elaine seemed to feel in control of determining the end “I just decide when I’m
finished and want to close the subject” (p. 4). Matilda said that she could tell that it “wasn’t buzzing around my head anymore” and further elaborated on the relief that came from this absence of activity.

Some older adults describe knowing a problem is over by their feeling of peace and relief. In response to the question, how do you know you’re finished dealing with something?, Hortense† reported “generally I feel at peace with it” (p. 42). Myrtle† responded, “I just feel better. I guess I just have to get it out of my system and then I’m ok” (p. 60). Similarly, Matilda noticed that the issue was not as present anymore, “I feel...relief and I feel like it’s not buzzing my head anymore...I just don’t spend any more time on it” (p. 8). This contentment was present in Claire’s† explanation as well, “I’m quite content with what [I’ve done]. Then you know the tears are all over and I’m...my positive self again, because I made a decision. It’s put to rest” (p. 9). Thelma† echoed this, saying she was finished dealing with a problem when she was “comfortable” and felt like she handled the situation (p. 8). This resolution was apparent to some in that they were able to shift their focus off the problem and move on. For Mabel† she could tell it was over “when I have peace of mind” (p. 61). When asked what that peace of mind felt like, she responded “like relief. And then I go on” (p. 61). Harriett echoed this, “I’m more at peace...I can’t explain it but it just makes me a more peaceful person. So I guess I’ve let go of it and moved on” (p. 47-48).

For others, the cues came from outside themselves, in the problem itself. They knew that they were finished dealing with a problem when it was resolved and they could move on. Ella made it clear that until the problem was resolved, she had to be involved. She explained that she knew she was finished dealing with the problem:

When it has an outcome that has solved the situation. When you can move on to something else. Because...you can’t just sweep it under the rug and think it’s going to go away. You’ve got to really [deal with it] whether it’s pleasant or not (p. 5).
Others agreed, it was this resolution that was the key. Aida said she was finished when “it’s taken care of” (p. 11). Erma also focused on the features of the situation, not any particular changes in her, “it gets better” (p. 50). Agnes giggled at the question and responded that it seemed to be when “things get worked out” (p. 22). Some other participants also found the question to be a strange one and responded that a person just knows (Clifford, Laura†). Bernice concurred, “you can just tell” (p. 48). Missy† also struggled with the question, saying “I don’t know. I guess I just don’t deal with it anymore” (p. 15). Zelda’s explanation also focused on the situation returning to normal but reminded the interviewers that this resolution is not always achievable.

You go through that and then it’s just like, ok, everything is normal. You’re alright. It’s, you know, carry on. But you can’t always (p. 22).

When asked how they know they are finished dealing with a problem, some older adults emphasized the gradual nature of recovery and the role of time. Laura† said it succinctly, “time helps with anything. It irons itself out” (p. 12). Mabel† explained “it takes a little while, you know, because you think about it and pray about it and think about it and pray about it, and then one day it’s gone” (p. 61). Although she reports dealing with the problem in an ongoing way, her phrasing seems to imply a patience that is in contrast with Ella’s “like a dog with a bone” persistence. Millie† talked about the time it usually takes for her to recover from a problem. She said, this relative “pointed it out to me years and years ago - it takes me three days to get over something when I’m really upset” (p. 65). Harriett concurred, “it may take me a few days but I can come through” (p. 50). Zelda† was still struggling with the deciding how to deal with the problems she faced and determining what outcome she wanted but expressed a hope that the situation would get better with time. She said, “It’s not working this time, but I don’t know, I guess it’s just time that’s going to work this out” (p. 77).
A few participants gave examples of the gradual nature of recovery from difficult times earlier in their lives. Beatrice spoke of her divorce,

I really did love him and I really wanted it to work, but you know, he would drink and I would remember that I decided I can’t live [like] this, I need a divorce...I need to get away from this and have a life. But it would still come over me at times [I’d] think, ‘Oh, how can I stand it, it hurts so bad.’ And [I’d] think, ‘When is the hurt [going to] go away? When is it...when am I [going to] be over it? Be done with it.’ It wasn’t ever any certain time, it just eventually, I would look back and think, ‘Well, gee, I haven’t, it hasn’t hurt like that for a while. I must be getting better.’

But it wouldn’t be like [bangs her hand on table] this is it, I’m over it...I look back and think ‘Gee...I’m laughing. I feel good and then all at once you’re over it...Not all at once. [laughing]...You feel better. You feel like yourself. So I don’t know like [banging] any...cutoff point (p. 38).

Another person emphasized the gradual nature of the change. Miriam reflected on her father’s death and her husband leaving when asked about whether there was any time when she noticed that the situation getting better. She said, “I never really thought thatI never even thought about the stage I was in rather there was any progress being made or not...just getting through it” (p. 3). Miriam explained, “I can’t really tell you because it was a gradual thing [to] come out of...but a long time...took me a long time” (p. 5).

In response to the question of when they know that they are finished dealing with a problem, some older adults explained that there are some problems that are never over. Mildred took a deep breath and responded, “I don’t know, some things maybe you never really finish...You know, you just deal with it all the time” (p. 7).

Inez concurred, “I don’t know if you’re ever done dealing with things like that” (p. 52). These responses point out the ongoing presence of the problem; another reminded the interviewers that just because something has been resolved that does not mean that it will not return. Hazel explained that it was not possible to she was finished dealing with a problem, “you never know when it’s [going to] come back and bite you” (p. 6).
3.3.4 Patterns of Depression Status across Themes.

Interviews from depressed and non-depressed were analyzed together then later examined for patterns of depression status across themes. The purpose here was to explore whether depressed and non-depressed older adults talk about their experiences of stress in similar or different ways. Most of the themes developed above are the results of contributions from both the community and outpatient samples. These themes describe the experience of a stressor, the strategies employed, and the nuances of resolution. For example, it is interesting to note that one of the features of depression, rumination, is described by individuals from both groups. Some differences, however, did appear. The theme of avoidance is primarily made up of quotes from the outpatient sample; the exception is Betsy, who met subthreshold criteria for depression. This withdrawal from activities may represent features of sickness-behavior, an alternate conceptualization of depression that has appeared in the literature (Charlton, 2000). Sickness-behavior is related to immune activation and manifested in changes in appetite and sleep, withdrawal from social activities, aches, fever, and fatigue (Dantzer & Kelley, 2007). On the other hand, quotes of two other outpatient participants and Betsy described their attempts at distraction, which could be viewed as a more active form of avoidance. The idea of active avoidance fits less well with the withdrawal features of sickness-behavior.

Another difference between the groups is that several outpatient participants described the way in which their responses have changed since therapy. Myrtle’s peers and family have noticed that she no longer shakes “all the time” and is more able to handle problems. Milton described his “blow up” in which he threw his book across the room when he was upset but then worked with his son to develop a plan for his next conflict. Adelaide explained that she learned breathing exercises in her therapy group. She was doubtful at first,
When they told me that, I thought what are they saying? But once you start learning how to breath you know I’m just breathing like you’re doing now. But that’s not the way... You either lay in bed or sit straight up [she demonstrates breathing in and out], go like that you know... It helps me (p. 8).

For these individuals, they were able to recognize differences in their responses and spoke of these as positive changes.

One theme that was developed with the others without reference to depression status was not presented above. It was reserved to discuss in this group comparison section because of its potential feedback to the overall conceptualization of the study. Some participants from the outpatient sample viewed their depression not solely as an outcome, as it might be classified in environmental, biological, or psychological stress theories. Instead, some spoke of depression as a paralyzing problem, something that was not a permanent condition, and that they wanted to avoid in the future. After feeling stuck in the problems they believed contributed to their depression, four participants reported taking steps to get on with their lives. Hortense† described her heart problems and associated depression as “paralyzing” and said she “was afraid to do anything” (p. 40). Since therapy, she reported that she was “getting more courage” (p. 41). She explained, “I just thought, there’s nothing I can do about” and “figured if I pass out, somebody’s bound to see me” (p. 41). Hortense† decided to go about most of her tasks like mowing the grass, but decided not to shovel snow. She said she carries her cell phone when she is away from home in case there are any problems. Zelda† explained compared her current feelings to those when she was depressed, “I finally have taken a few steps that I couldn’t before and I know I just have to do it... because I have to get my life - no matter what it is, if I know what it is, I can deal with it” (p. 23). She elaborated, “two months ago I wasn’t here, I couldn’t have done it. I absolutely could not face some of the things I’m facing” (p. 72). Celeste† determined that she needed to
“force [herself] to be with other people” (p. 11). She explained that her husband had traveled a lot during their marriage so she was used to being alone and did not really mind it. Celeste† had determined, however, that becoming isolated was dangerous for her “I know it’s not good for me, for my mental health, to just curl up in a hole” (p. 11).

Milton† in particular, had thought a lot about how he became depressed. He explained, “I did some mental research to try to identify what caused me to go into depression. Because [my wife] had already been gone for about 9 years. And apparently I didn’t get involved in enough things and didn’t set objectives” (p. 92). Through his review of that period, he determined that he had been isolating himself. Milton† spoke throughout his interview about his current “objectives” in many situations - continuing his involvement with his volunteer group, making plans with old friends, trying to organize a new group for active seniors. Across these objectives, he was clear “my goal is not to fall in the condition I was in” (p. 92).

The qualitative themes provide rich information about the experience of stress in the lives of older adults. Although formal hypotheses were not proposed for the qualitative component of the study, it was expected that differences between the groups would appear across the themes. These differences were expected to provide insight into depressed and non-depressed older adults’ lives. Instead, the striking finding across the “stress stories” is that not many differences appeared. Participants from the outpatient and community groups contributed to most of the themes. In general, participants described their experience of stress in a variety of ways but the differences in how “stress” is detected, how it is managed, or how it is resolved were not related to depression.

Two sets of themes highlighted the differences between the groups. First, the linked themes of avoidance and distraction solely featured participants from the
outpatient sample and one community participant who met subthreshold criteria for depression. Non-depressed community participants did not talk about ways of avoiding the problem or using other activities to distract themselves. Second, some of the participants from the outpatient group had thought a lot about their depression. Their descriptions of depression and how to “not to fall” into it again brought up the novel idea that depression may be a stressor in its own right and something to be avoided. In contrast to the unidirectional flow from exposure to appraisal to activation to outcome theorized and depicted in Figure 1, a depressive episode could be a new event or difficulty. The stories of the experience of depression were not the focus of the current study but are available for development in the future. This idea, however, prompted more flexible thinking about how an outcome is defined and will be further elaborated in the discussion.
A goal of the overall project was to use the findings from these varied conceptualizations and quantitative and qualitative analyses to produce a more multidimensional depiction of the stress-depression relationship. Together, the combined findings of this study can help profile a sample of older adults with and without depression. The study documented the number and severity of stressors older adults experience, their global levels of perceived stress and the ways in which they detect it, what their biological stress profiles look like, and what stress means to them.

Responding to the question of who is depressed in old age requires examining the results across the overall study. Due to the matched sampling, the outpatient and community samples were very similar in terms of their demographic characteristics. These contextual features of individuals’ lives (e.g., marital status, income, education) did not appear to be what differentiated them. As evident from the quantitative results, those with higher depression scores tended to have had more life events in the last year (both with the self-report checklist and the LEDS rating). Additionally, although none of the AL indicators on their own were correlated with depression, tertiary outcomes was a significant predictor when used together the other AL composites and event exposure. Participants’ descriptions of their lived experience of stress and attempts to manage the situation and their own responses provide nuanced detail about the activities between exposure and the development
of disease. The implications of the quantitative and qualitative results for each perspective are discussed below, with caveats for possible alternative explanations and directions for future work.

4.1 Environmental Perspectives on Stress.

The older adults in this sample experienced a variety of stressful events in the past year. The LEDS interview probed for further details on the events, difficulties, and surrounding contexts. A review of the synopses in Appendix B shows events ranging from major health incidents for themselves to deaths of close contacts to accidents and crimes. Although there was a considerable range in the number of events which occurred, the average person from the community group reported about two LEDS events and the average in the outpatient group was about three LEDS events. Similar numbers of events were reported on average on the ELSI checklist measure; this is reflected in the correlation between the LEDS and ELSI totals. In the final regression models, using either measure, exposure to life events in the last year was a significant predictor of current depression. This is interesting to note because although the groups had similar mean levels of exposure, exposure to more events was related to higher levels of depression.

This finding could be interpreted as depressed individuals having a bias to report more events, a common critique of stress checklists. The LEDS ratings, however, withheld information about depression status. Whether an incident was counted as an event depended solely on the contextual information and the LEDS manual, not on the individual’s evaluation of it as important or influential. Another possible explanation is that of stress generation (Hammen, 1991) in which more events actually do occur to people with higher levels of depression, but it is because these individuals ”by their symptoms, behaviors, and social contexts generate stress-
sors” (Hammen, 1991, p. 555). Follow-up work could probe this by examining the independence ratings (e.g., a scale included in the LEDS scoring to rate the individual’s involvement in producing the event) as well as more formally examining the timing of onset in relation to event occurrence. Although the directionality of the stress exposure-depression symptoms relationship cannot be determined in this cross-sectional study, the results confirm that exposure to life events is related to depression regardless of directionality.

4.2 Psychological Perspectives on Stress.

The results of the current study indicate that psychological appraisal is strongly related to depression. In a cross-sectional study such as this one, it is not possible to formally test directionality in the causal chain implied in many depictions of the stress process. The correlation between the PSS and depression was so high that it was not possible to include a measure of stress appraisal in the planned models without the PSS overpowering the other predictors. Substantial item overlap between the PSS and GDS was likely problematic here. Correlations of .65 and above between the PSS and a measure of depression symptoms have been found in previous work (S. Cohen et al., 1983).

Although it was not possible to disentangle stress appraisal and depression symptoms in the quantitative data, the current study can still address the psychological perspective on stress. In some of the themes, it is possible to hear older adults talk about how they appraise events. For some, their tense bodies tell them that the situation is stressful. Others describe the moodiness, worry, and anxiety they experience when encountering a stressful situation. It is possible that noticing these indicators tells the individual to appraise the situation as stressful. It is also possible that the appraisal occurred prior to the physical or emotional responses because par-
participants were asked to think about “what happens when you encounter something difficult.” Lazarus’ stress and coping framework suggests that both of these occur, an iterative evaluation process in which the person is exposed to an event and his or her response influences appraisal and his or her appraisal influences the resulting response. Descriptions of considering a problem from all angles and seeking information from others on how to tackle a problem may be examples of problem-focused coping (Folkman & Lazarus, 1980), whereas methods of relieving emotional distress by venting to others or avoiding the problem could be examples emotion-focused coping.

Appraisal is key to the methods older adults described to deal with their stressors. Older adults have been found to use the contextual features of the problem (see Blanchard-Fields, 2007 for review) in selecting the strategies they use. Across the interviews, many of the participants replied that how they respond to a problem depends on what the problem is. Some participants evaluated how much control they had over the situation in deciding what to do about it. Those who were determined to pursue the problem until it was resolved are likely exhibiting what Heckhausen and Schulz (1995) term primary control. Primary control involves changing the environment to fit with the individual’s needs and desires. Other participants described situations in which secondary control methods could be involved. Older adults could preserve their feelings of primary control by selecting the problems that were worth engaging. By accepting the situation, the individual has created a resolution and no longer needs to actively work to change the problem. One participant’s husband even reminded her to think about this when she was becoming upset, “Is there anything you can do about it? No, well then you need to move on.”
4.3 Biological Perspectives on Stress.

Missing data due to collection problems made it impossible to test the commonly used elevated risk zone AL index (Seeman et al., 2001) or the more exploratory data analysis approaches (Gruenewald et al., 2006; Karlamangla et al., 2002). Instead, composites were created from the biological indicators to represent three of the theoretical levels of wear-and-tear resulting from the body’s attempts at allostasis. This conceptualization, which was an attempt at capturing the process of developing AL by using composites of its theoretical stages, may be useful in future studies with larger samples. In particular, the current study was probably especially underpowered in detecting any primary mediator effect given than only one indicator was available in the current data.

Secondary outcomes appeared as a significant predictor in the model using ELSI life events and AL composites. This result was not significant in the model with LEDS events. One explanation, especially given the sample size, is that the effect may be spurious. The direction of the effect, in which individuals with higher secondary outcomes scores have lower depression scores, is certainly opposite of the hypotheses. On the other hand, it may represent some real characteristics of the sample. Although none of the community sample met criteria for MDD, they ranged widely in their health. Some reported good overall health and very few doctor’s visits, whereas others in the community sample had severe diseases including MS (Ella) and end-stage ovarian cancer (Miriam). The inclusion of participants such as these, who display positive psychological health despite serious physical illness, is another possible explanation of this surprising result.

In both the LEDS and ELSI models, the tertiary outcomes composite was a significant predictor of the GDS depression measure. These tertiary outcomes are the hypothesized results of AL damage. In some conceptualizations, psychological
outcomes, such as depression, are included in this group as well. If cumulative stress-related wear-and-tear produced these physical outcomes, such as heart problems and diabetes, then it is not surprising that this wear-and-tear is also manifested in a psychological outcome (i.e., depression symptoms). Because the tertiary outcome data are based upon medical record information and not self-report, a reporting bias in which more depressed people rate their health as worse can be ruled out here. Additionally, the problems identified in the tertiary outcomes are diseases and symptoms, which are hypothesized to develop gradually, and so are unlikely to have appeared simply because an individual is depressed and has been less attentive to good health behaviors.

Even though it was not possible to include important pieces of the early allostatic response (i.e., glucocorticoids and neuroendocrine markers) in the quantitative analyses in the current study, features of the physiological response to stress were described in the qualitative interviews. Participants described feeling their bodies become more tense and noticed themselves holding their breath. One participant described what sounds like a lot of activity in her body, explaining that she felt fidgety and like she was jumping out of her skin. Other themes speak more indirectly to AL theory. For example, older adults’ discussions of how they responded to a stressor and how to know when to turn off their responses have important implications as well. The themes describing physical activation sound like the lived experience of allostasis. Detailed explanations of the nuances of knowing a stressor is over resonate with both successful adaptation and chronic engagement of the stress response. These descriptions provide support for the AL changes which are difficult to identify in a single study as they occur on different time scales (i.e., shifts in hormonal concentrations minutes after exposure, tissue damage months or years later).
Measures of AL and other stress-related biomarkers are increasingly included in psychological studies. McEwen’s descriptions of allostatic responses and the potential problems when those responses are chronically activated or fail to address the stressor provide physical outcomes that match well with psychological theories of emotion regulation in the presence of stress (Blanchard-Fields, 2007; Carstensen, Fung, & Charles, 2003; John & Gross, 2004; Reich, Zautra, & Davis, 2003). It is important to be mindful of the implications of using discrete measurements to assess ongoing lives. Despite the complexity of a model such as AL or depiction of the stress process like that in Figure 1, they are simplifications of reality and, by necessity, propose concrete starting and ending points. The preventing future depression theme, however, points out that today’s negative outcome may be tomorrow’s stressor. This is possible for physical outcomes as well.

In the current study, health problems were assessed via blood samples and medical records as possible results of stress-related regulatory processes. Health problems, however, also placed substantial demands on the participants in the study. Although these themes were not developed in the current study, participants spoke in detail about their current health, including discussions of how health problems limit their social contact. As is evident across the synopses, health issues sometimes appeared as events and even more frequently as difficulties in the LEDS interviews. Although the LEDS manuals are detailed references with examples, these were developed primarily on younger and middle age samples. Severe health problems earlier in the lifespan are relatively rare. In older adults, these same health problems are more common and may be the result of both normal age-related decline and AL damage. Separating age-related physical changes from possible stress-related disease is one of the main motivations of large-scale studies of AL. For the current study, the LEDS coding team spent a substantial amount of time deciding how to
code health problems. Chronic strains and daily hassles have been found to affect well-being (Serido, Almeida, & Wethington, 2004). The detailed contextual information in the LEDS, including duration of the difficulty, allows for the examination of the impact of chronic strains. With the prevalence of health difficulties across the sample, examining these as possible predictors of depression symptoms is a future direction of the current study.

4.4 Conclusion.

Because of the dearth of multi-method research on stress and depression in later life, the current project offers several contributions. First, it provides a potentially important measurement test of the usefulness of LEDS and commonly-used checklist life events measures in a depressed older adult sample (Kessler, 1997). Second, the study represents a novel opportunity to examine stress from multiple (e.g., environmental, psychological, biological) lenses. Given the massive but diverse literature on stress, it is essential to collect multi-method data in order to better understand the process and consequences of stress in a more holistic way. Additionally, a unique contribution of this study is the opportunity for synthesis across these divergent data sources and analytic techniques that will allow a more comprehensive depiction of the relationship between stress and depression in late life.

Several limitations must be noted. First, the study is limited in terms of sample size. Recruitment of the depressed sample was expected to be a challenge, but over the approximately 10 months of data collection there were fewer potential participants in the participant pool than expected. This was also one of the first research studies conducted with the mental health facility. Many of the procedures and contacts had to be set up for the first time prior to data collection and as issues arose. Recruitment for the outpatient sample relied on therapists and staff
mentioning the study and offering the information sheets. Although the research team was in regular contact with the liaison and met several times with the staff, additional familiarity and presence may have helped. Despite the small sample size and probable low power, some relationships were detectable and have implications for future work.

The current study provides critical groundwork for future work by piloting the feasibility and logistics of such a data intensive project. The results will also direct future larger studies hypotheses in terms of the contributions from each perspective. Additionally, studies such as this have to balance the at times competing demands of quantitative and qualitative paradigms. Although the sample is small by quantitative standards, it is quite large from a qualitative framework. Transcribing and coding the LEDS interviews were time-intensive. Conducting an inductive analysis with 32 transcripts was a demanding task for the research team. Finally, although the actual N is not large, the variety and amount of data available on each participant is considerable. Collecting life event, perceived stress, allostatic load, and qualitative data on a sample of depressed and non-depressed older adults offers a rare opportunity for in-depth investigation and synthesis.

Another limitation is missing data on several of the important biological stress indicators. The loss of this data is disappointing, but as the research team’s first foray into collecting biological data, it is still informative. Participants’ willingness to fast, have blood drawn, and share medical records were concerns prior to data collection but in the end turned out not to be problematic. In addition to the interesting results, it serves as a pilot for collecting biological measurements on a sample of older adults (e.g., future waves of NDHWB).

Lastly, conceptual models of the stress process such as that shown in Figure 1, posit complex causal chains of activity (i.e., a life event occurs, person appraises it as
stressful, physiological adaptation and behavioral coping mechanisms are activated, the methods employed are insufficient, catecholamine and corticosteroid levels are elevated, and over time and with repeated exposure the individual develops excess body fat around the middle and high blood pressure, the person becomes vulnerable to cardiovascular disease and depression). Clearly, actually testing this series would necessitate a comprehensive design that would include frequent and long-term longitudinal assessments, ethnographic observation, and sensitive real-time assessments of stress and activation. The current study used a single research visit to collect data on currently depressed and non-depressed older adults. In this single observation, however, both substantive and methodological questions were pursued. Collecting life event, perceived stress, allostatic load, and qualitative data on the same set of people offers a valuable opportunity to examine how the environmental, psychological, and biological perspectives might fit together. This should give useful direction to future studies examining stress-as-process.

Despite these limitations, the study pursues interesting research questions and offers methodological innovations. Together, the combined findings of this study can help profile who is depressed in old age and document the number and severity of stressors older adults experience, their global levels of perceived stress and the ways in which they detect it, what their biological stress profiles look like, and what stress means to them. It will help inform the literature on the role of stress in mental health in later life.
APPENDIX A

PREPARATION OF QUALITATIVE DATA

A.1 Coding.

Transcripts were coded to include the participant’s reference number and the page number of the transcript. This coding is particularly important because the transcripts are eventually separated into units of meaning and grouped into categories based upon their meaning. Codes allow the researcher to refer back to the original transcripts and other data from a participant and create an audit trail that an independent auditor can use to examine the credibility of the findings. An example of the code for page 10 of the transcript of the interview with participant 101 would be T/101-10.

A.2 Unitizing.

After each page of each transcript is coded, it is ready to be unitized. Unitizing is the process of separating the data and identifying “chunks or units of meaning” (Maykut & Morehouse, 1994, p. 128). Lincoln and Guba (1985) state that a unit of meaning should have two characteristics. First, it should be heuristic. Second, the unit of meaning “must be the smallest piece of information about something that can stand by itself” (Lincoln & Guba, 1985, p. 345). During this process, the researcher carefully reads through the transcript and when she or he finds a unit of meaning, draws a line across the page to separate this unit from the others.
in the transcript. In the left margin, the researcher writes the location code (for example, T/101P-8). Beneath the location code, the researcher writes “a word or phrase that conveys the essence of the unit’s meaning” (Maykut & Morehouse, 1994, p. 129). This process is then repeated for the entire transcript; every piece of the transcript is coded and unitized. After the entire transcript was unitized, the units of meaning were then cut apart and taped to separate 5” x 8” index cards. Lincoln and Guba (1981) recommend that other information that would be helpful to have available later in the analysis be written on the back of the index cards. Instead of including information on the back of each card, in previous work we decided to develop an information sheet posted in the analysis room (for example, in the widowhood study, the age of each widow, the age of her husband at his death, the expectedness of death, whether the relationship was a first or second marriage, and the length of the marriage). The idea of having ready access to information such as this is that it may be helpful in the late stages of the analysis, when the researcher is synthesizing the information and looking for patterns and relationships across categories; this supplementary information, however, should not distract from the real focus of the analysis - the interview data.

A.3 Researcher-as-instrument.

Patton (2001) emphasizes the importance of including information about the credibility of the researcher, as the instrument of qualitative inquiry, in the report. Gilbert (2002) also calls for recognition of the researcher’s role in the finished product, that it is the researcher’s responsibility to remind the reader that “[the researchers] do not act as a conduit of information, but as co-constructors of a finished narrative” (p. 228). Therefore, providing background information on the researchers involved in a qualitative study is as necessary as providing psychometric
information on the measures used in a quantitative study. As other members of
the research team are added, background information on them will be included in
the document; my background is described below. I received training in qualitative
research methods at Viterbo University under the direction of Drs. Pamela Maykut
and Richard Morehouse. I pursued further graduate training in qualitative methods
and analysis in a year long course in the Sociology Department at the University of
Notre Dame. Additionally, I attended a workshop on qualitative analysis with and
without the use of computers at the University of Michigan’s Summer Institute in
Survey Research Techniques. For my first-year project, I trained a research team
and worked with them to do a qualitative analysis of interviews with recent wid-
ows. My master’s project extended this work by adding additional interviews and
quantitative data. Throughout this time, I have read seminal works in qualitative
inquiry and consult with Dr. Maykut about projects.

The research team included two other members. Francys Verdial is an undergrad-
uate with extensive experience conducted qualitative interviews with older adults
from her work on the Choosing to Care study. She transcribed the interviews and
consulted with the team doing qualitative analysis for that project. Brenda Jackson
is a graduate student with interests in qualitative methods. She is currently involved
in the development and collection of qualitative interviews for the NDHWB study.
Both are training in qualitative analysis following Maykut and Morehouse’s (1994)
guide for beginning qualitative researchers.

The third component of this study integrates the findings from the qualitative
and quantitative aims. In the work for my master’s project I studied mixed methods
in more depth by reading on the topic as well as attending a mixed methods work-
shops at the International Congress of Qualitative Inquiry. In particular, working
with the editors at the Journal of Mixed Methods Research on the manuscript for
my master’s was invaluable in learning more about conceptualizing and presenting a mixed methods study. In preparation for the current project, I have consulted with leaders in mixed methods research and am pursuing additional training opportunities. Strauss and Corbin (1998) describe the importance of learning about the subject and method while in the process of doing qualitative research. This openness to learning from the respondents and the analysis is one of the characteristics of a qualitative researcher (Lincoln & Guba, 1985; Strauss & Corbin, 1998).

A.4 Provisions for trustworthiness.

Throughout the planning and analysis, the other team members and I built and maintained an audit trail. Documentation from all parts of the inquiry process was included in the audit trail. These documents include the researchers’ journal (a notebook with entries describing the activities of each meeting and progress in analysis, description of what is working and what is not working, members of the research team present, and the date and time of the next scheduled meeting), the original interview transcripts, the unitized data, and the ”big paper process” that follows Maykut and Morehouse’s (1994) suggestions for research teams using the constant comparative method. As they state, “this documentation allows you to walk people through your work, from beginning to end, so that they can understand the path you took and judge the trustworthiness of your outcomes” (Maykut & Morehouse, 1994, p. 146). These materials are available upon request. Working as a research team builds the trustworthiness of a study (Lincoln & Guba, 1985; Maykut & Morehouse, 1994; Patton, 2001). The feedback from a peer debriefer and an auditor will also serve as provisions for trustworthiness and credibility.

Another provision for trustworthiness is the creation of an audit trail and the use of an auditor. Lincoln and Guba describe the audit as the “single most important
trustworthiness technique” (1985, p. 283). An auditor will be selected to examine the documents of the audit trail (transcripts, unitized data, researchers’ journal, big paper process, notes from meetings with the peer debriefer, and feedback from the member check process). This person will use the audit trail to investigate whether the findings are grounded in the data. The auditor will trace a sample of the findings back to the original sources and “reach a judgment about whether inferences based on the data are logical, looking carefully at analytic techniques used, appropriateness of category labels, quality of interpretations, and possibility of equally attractive alternatives” (1985, p. 323). This auditor will also assess the degree and incidence of inquirer bias and the extent of efforts made to ensure and the ultimate success of these efforts in building the confirmability, dependability, and credibility of the findings. Laura Taylor, a graduate student conducted a qualitative analysis of focus group interviews for her own project using similar methods, visited the analysis twice to ask questions about the project and look through the themes. The research team will collaborate further with Laura and ask for her feedback at the end of the semester.
APPENDIX B

SYNOPSIS AND SUMMARIES OF EVENTS AND DIFFICULTIES

B.1 Gertrude

Gertrude is a 77 year old Caucasian woman. Gertrude divorced 40+ years ago and is not currently in a relationship; a companion died 5 years ago. She has 5 children (4 sons and a daughter), 2 of her sons live with her in her home. One of the sons residing with her has a brain injury from an accident about 10+ years ago. Her other sons live out of state but she talks to them regularly on the phone. She speaks with her daughter who lives in town daily and sees her several times per week. Gertrude is also in daily phone contact with her sister and a cousin. She attends activities with friends from work. Her best friend lives out of state but they talk monthly and see each other approximately once per year. Gertrude lists her sons and sister as confidants - she would seek help from her sons if there was a problem with the house because they could fix it, when probed she couldn’t identify what problems she would confide in her sister. She is Catholic and has lived in the area all her life. Gertrude has a tenth grade education. She reports an income between $15,000 and $25,000, has a good retirement plan, and no problems paying her bills. She owns her home and has helped family members buy their homes. She retired after 32 years working on campus, but continues to work part-time as needed.

Health event: other focused. Son with head injury had a seizure. In the early morning, S heard thud and found him on the floor of the kitchen having a grand
mal seizure, she called her other son living at home to come and help. Called 911-he was in hospital 3 days. He received the head injury when he was hit by a truck 15 years ago. At the time of the injury, he was in coma for a long time (2-3 weeks?). One month after the accident, he had a second seizure. S thinks that the seizure may have been triggered by financial problems, issues with ex-wife and children. The doctor is unsure, says probably from the old injury. No apparent long term impact on S-son is primarily with his brother during the day; he has Medicare due to his disability.

B.2 Mildred

Mildred is a 78 year old widowed Caucasian woman. She lives alone with a dog and a cat. Her husband of 50+ years died nearly 2 years ago. They had been separated until her husband’s diabetes worsened and Mildred brought him into her home to care for him until his death. She has 6 children. One daughter who lives locally has received treatment for ”mental problems” and does not participate in family gatherings; Mildred calls her weekly. She talks to another daughter, who lives out of state, the most often (2-4 times per week) and sees her about twice a year; she lists this daughter as her confidant. She talks to her other children about once a month; they visit about 4 times per year. Mildred reported having very little family in town. She talks to a cousin often and goes to the store with her every week. She also has 2 grandsons, but they are involved in their own lives and a new great grandchild that she has not seen for a while. Other great grandchildren have moved out of state. One granddaughter died a year ago. Mildred’s best friend moved a few years ago, but visits her about 4 times per year and they talk every week. She sees church friends at least weekly and new friend that makes sure that Mildred gets to church and the store. Mildred has lived in area her whole life, was
an only child, and was raised by her parents. Mildred contracted TB in adolescence and had to leave high school for her treatment. She completed her GED a few years ago. Mildred retired from her work as a clerk about 15 years ago; she had worked there for about 20 years. She is Catholic.

**Death event.** Granddaughter died. She had a developmental disability similar to Down’s Syndrome and lived at a group home locally, but spent every other weekend with S. Called often. The group home workers called and said J had had a stomach ache all night, thought she ate too much. Then in a.m., her lips turned blue and they took her to the hospital and she died. J was supposed to be visiting S that weekend. When S got to the hospital, J was dead. S had to inform family. S’s daughter in Ft Wayne and S helped the brothers arrange the funeral - had to borrow money to bury J.

**Health event.** S had a sore on her nose, under her glasses, it started scabbing. She went to clinic down the street, referred her to the dermatologist. Before the biopsy, the dermatologist determined it was cancer. Procedure involved taking layers off. Has a check up the week after the interview.

**Relationship event.** Oldest son had dropped all contact with family about 25 years ago. S didn’t know where he was. Last known location was TX, rumors of Peace Corps. When husband died, S asked kids to try to get in touch with son to let him know. Youngest daughter found him. He and his wife were teaching in Africa. He emailed S asking if she wanted to be in contact and came to visit in the summer. They have corresponded since then.

**Health difficulty.** When goes to bed, hand falls asleep and gets numb then painful. Some numbness during the day, but really bad at night. It wakes her, sometimes severe pain, like burning. This has been going on for a few years, it’s gotten worse over last year. Frequent back pain, comes and goes. It is painful even when she
stands to do dishes. S had TB in childhood and continues to be short of breath. Also says that she has stiffness in her legs, not painful, but slows her movement.

*Financial difficulty.* Lives on social security ($975/mo), no pension. Directly deposited into bank, bills automatically come out, little left at end of month. Lives in old house that needs repairs that she can’t afford. “Life is just going without” doesn’t want very much. Gets help through Real Services for utilities, waived her Medicare ($97/mo) fee now qualifies for Medicaid. Can afford her groceries.

*Housing difficulty.* Lives in bad neighborhood. Shooting in the park not long ago. Feels like the druggies look out for her, they know she won’t report them because they could burn down her house at night. Not afraid, has lived there a long time. Hasn’t had any problems. The house on one side burned down, the other side is vacant. Her house needs lots of work. Has 2 furnaces = expensive. Bad roof over the other kitchen she doesn’t use. It leaks when it rains. She would like to stay as long as she has the dog, then will think about moving. Her kids don’t think she’s safe. S wants to stay there - it’s been her home since age 4, close to bus and church (active there, it’s the only activity she’s involved in anymore). Everything is available for her there.

### B.3 Betsy

Betsy is a 63 year old divorced African American woman. She divorced 20+ years ago and is not currently dating. Betsy has 2 daughters who live in the area; one she talks to everyday and the other weekly. She talks to her sister daily and sees her weekly; she also sees a niece monthly. Betsy and her friends see each other weekly and talk on the phone throughout the week. She lists her youngest daughter and sister as confidants. She graduated from high school and began college in middle age; she has completed her degree. She left home to get married at 21. S is Baptist.
S has been on disability from her work in a state office for 1.5 years due to cancer and foot surgery.

*Health event.* S had surgery on her ankle. S was in the hospital for 1 day. S was able to return home and take care of herself after surgery - with crutches and a walker.

*Health/accident event.* S touched a deli case at a store and got 2nd and 3rd degree burns on hand. She had to go to the clinic to be treated. Store managers did not respond to the problem or address S’s concerns.

*Crime/legal event.* A hit-and-run driver hit her house. Driver hit a neighbor’s car on the street, came through her yard and took off her porch, hit the telephone pole, hit another mailbox and kept going. Police found the driver, but now out of jail and they can’t find him.

*Work event.* S left her job because of cancer and remained on disability related to her ankle and continued care by oncologist. Within 6 months of going on disability, a new person in essence “took over” her position, but the job had been retitled and her position had been eliminated. S had done all the paperwork to move to the new company (her work was moving from state to private company) when she returned from disability leave. In September 2007, the company chose not to rehire anyone that was on medical leave. S didn’t find out about this until much later, sometime in 2008. She requested letter stating such when she found out about it from a friend at work. S does not know what she will do when she is released from medical disability. She believes this medical leave will negatively impact her job prospects. She has not done any checking on this but has heard from other people that this can be a problem.

*Health difficulty.* S needs another surgery on her ankle. The first surgery was to correct ankle problem, S thinks it’s worse than before. Has to do stretching exercises
and wear support hose or elastic bandage to keep swelling down. Low flexibility,
can’t do heel-toe motion. Still able to drive, but walks with cane. Bones have fused.
Has to get pins back in. Reluctant to go into surgery again because of complications
from last anesthesia - mouth was torn. Also needs to get BP down into safe range.
Surgery has not yet been scheduled - needs to get her head ready for it. During
winter, S worries about walking on ice and falling.

**Health difficulty.** S had a cancerous tumor removed and is still under doctor’s
care. She reports being tired and fatigued lately. Needs to go in for cancer scan
and check-up in next few months. S is going to request a blood work-up to see how
she’s doing given the fatigue lately. Sees oncologist every 6 months or so.

**Health difficulty.** S is in constant pain because of arthritis. Takes Advil everyday.
Pain severe enough to limit her mobility and require rest. Doesn’t sleep well at night
because of back pain. S has tried chiropractor, but didn’t find it to be effective. She
says the foot surgery - before the problems with healing - improved her back and
neck pain. S reports getting 3-4 hours of sleep.

**Housing difficulty.** S had to pay a deductable to have her house repaired. S
is dissatisfied with the repair work on her home. Started repairs in January, work
needed to be redone, but S had already paid them so work has not been finished.
Contractors say a balance is left on her account, they threatened to put a lien on her
house. The balance has now been waived. S spoke with the company the company
repeatedly, including the morning of the interview; still repairs to be made. S has
spoken to the Better Business Bureau about the company.

**Financial difficulty.** Disability payments stopped for 5 weeks due to mistake on
the deposit. S accumulated late fees and check charges because of this error and has
pursued the company (through several levels of command of her old job’s insurance
company) to get these fees covered. S was owed checks from May 23 and June 4.
She had to pay 2 house notes (payments) and late charges to mortgage company and check fees to bank. Insurance company’s rationale was that they didn’t approve of the diagnosis the doctor had given for her medical leave. S suspects they are trying to eliminate her from the rolls and no longer pay her. Her children helped her out with the other bills. Otherwise this year, she has been able to manage financially. Her budget is pretty minimal and couldn’t really suggest other ways to cut down. The monthly co-pay on some of her medications is quite high. S has some insurance available from her job before (the one that she is on medical leave from).

**Relationship difficulty.** Family believes S’s ex-husband’s mother is suffering from dementia. She has had surgery on both of her knees and is having difficulty walking. The woman lives in her own home, but her neighborhood has deteriorated. She is suffering from panic attacks and is very suspicious of her neighbors. S says woman would like family to be there every day. S called ex-husband, who she doesn’t speak to, about the situation - they are particularly concerned about needing to make decisions for the woman, but not having the legal clearance to do so. S told ex he needed to come up here and sort things out.

**B.4 Agnes**

Agnes is a 76 year old Caucasian female. She has been married for over 50 years and lives with her husband, who is retired. Agnes’ 10 children all live locally; one son lives a block away and several are in her neighborhood. She is very close to her children and talks to them “constantly”. She also has 25 grandchildren. Her youngest sister has died and she is not in frequent contact with her other 2 siblings. She has a sister who lives out of state, whom she sees about 3 times each year, and brother she sees every couple weeks at the grocery store. Agnes’ friends are dying off; friends are not a big part of her life. Agnes and her husband are very involved
with family and their entertainment revolves around family events. She lists her husband as a confidant. She has lived in the area her whole life. After completing high school, Agnes attended beauty college. She worked as a beautician and as a clerk at a store prior to retiring. She is Catholic.

*Health difficulty.* S has been on medication for HBP for 40 years. It has been stable over the past 2 years since she has seen a cardiologist. HBP was very high 15 years ago (systolic in the 200s). S also has a heart murmur. She has to take meds 4x day.

*Health difficulty: other focused.* Partner’s dementia has gradually gotten worse over the years. S has to repeat things over and over and has learned to deal with it by writing things down for him. S reports that it has not affected their relationship at all. Would rather have him like this than not at all.

*Health difficulty: other focused.* Partner has back problems and was complicated by shoveling sidewalk. P finally went to the doctor after S threatened to call an ambulance. Doctor prescribed muscle relaxer and pain meds that were very helpful in managing the pain, but he ran out and will not get them refilled. S is threatening to call the ambulance again so that he will get more meds. Stops S and P from doing things they enjoy and have had to miss their grandchildren’s games because P cannot sit on bleachers.

*Health difficulty.* Combined pain problems to rate this difficulty. S has had ulcers in her stomach for 40 years that she has had to have surgery on in the past (16 years ago). She takes Pepcid every once in a while, but does not have to avoid any types of food. Occassionally, all food creates a problem. S arthritis is ”very painful” at times. The most pain comes during drastic changes in the weather. S does not take anything for it because she has a bad reaction to pain meds. (Did not elaborate on this). S has been diagnosed with sciatica for 4 years. This doesn’t prevent her from
doing anything. S won’t take medication or surgery, because surgery did not help her son in the past who had back problems.

**Health difficulty: other focused.** Partner has had diabetes for 12 years. There has not been much change in the past 12 years. Condition has been under control.

**Health difficulty.** S reports to have claustrophobia. S stated that she faints if she is in an enclosed space or in a crowd of people. S has learned to cope by avoiding crowds. S reports that this started when she was 9 and fainted in a grocery store.

**Housing difficulty.** S lives in a very bad neighborhood and has lived there 48 years. S reports that there is a lot of drug traffic and just recently there was a “drug bust.” S reports the police are there constantly. Occasionally, S is concerned about neighborhood. S children are very concerned and want them to move, S unable to communicate with neighbors because they are all Latino and do not speak English. S has put serious thought in to moving to Plymouth on her son’s land. Move will likely occur in the fall of the coming year. Children are planning to build a house for them.

B.5 Audrey

Audrey is a 77 year old divorced Caucasian woman. She has been dating since the divorce but she says that they all die. It doesn’t seem as though she has had any close intimate relationships since her marriage. She currently lives alone. Audrey has three children (2 sons and 1 daughter). She only has contact with her youngest son, who lives locally, but travels frequently. She can call every day if she want and sees him about once a month. He brings her medication. She has not seen her oldest son in 30 years. Audrey reports feeling sad about not seeing him or her grandchildren and states that her son doesn’t have time for her. She does not appear to have a good relationship with her only daughter, who recently told her that she
wishes Audrey would “just die.” Audrey has some friends who she has dinner with, sees at church, and that visit her at home. She stays in contact with high school and college friends via email and is involved in a philanthropic sorority. She lists her confidants as her attorney-friend and youngest son. Audrey had one brother who died about 10 years ago. Audrey earned a BA and MA. She has recently retired from teaching over 40 years and is thinking about going back possibly for the money. She is Protestant.

Health event. Knee surgery. Doctors were taking fluid out of her knees and injecting cortisol, but it got so bad that they decided to do a knee replacement.

Health event. Second knee surgery approximately 6 months later. Apparently S was anemic during the last surgery, which required a blood transfusion.

Health event. Surgery for bowel blockage, in hospital for 10 days.

Health event. S experiences migraines. S will not have any for 6 months at a time then will have three to five within a two-week period. Has injection medication she gives herself as needed. She said she had a bout with migraines in the last year, but offered no specific time frame. We estimated the date.

Relationship event. S’s daughter told her she wished S would die. S hasn’t talked to daughter since the falling out. S sent an email two days before interview; no response yet.

Health difficulty. Combined difficulty - bladder and bowel problems. S has had problems with her bladder since 1989. Recently had surgery done at U of M to take a piece of her large bowel and put it on her bladder. S describes the problems as a “hassle”. Surgery occurred outside of the study period. Every year S has a bowel blockage. S states that it is not due to a bowel obstruction rather it is due to her medication.

Health difficulty. S has had arthritis for at least 10 years and the condition has
consistently exacerbated over the past five years. S does keep her from doing things she enjoys but tries to do those things at a slower pace. S is unable to stoop down (been at least 2 years) and unable to hang up clothes. S takes medication and has a patch (lidoderm) for the arthritis.

**Health difficulty.** Had a Reclast treatment for bone density. Physician was shocked at S’s bone density level. Stated that S is a “back fracture waiting to happen”.

**Health difficulty.** Bronchitis and Asthma. S takes inhaler as needed for asthma. It is worse in Summer and Winter. She has allergies in the Summer and often has bronchitis in winter time.

**Relationship difficulty.** S does not have contact with two of her three children. Children do not visit her when she is in the hospital.

B.6  Bernice

Bernice is 71 year old single Caucasian female. She has no children and currently lives in her own apartment in a retirement community. She has no siblings. Bernice has frequent contact with 2 cousins: she sees and talks to one of her cousins several times per week and has weekly phone contact and monthly visits with the other one. She has 3 friends she sees every day and lists her 2 cousins and 1 of these friends as her confidants. Bernice completed her high school education at age 17 and left home at 18 to work for a telephone company. She retired from the phone company 10+ years ago and has an income of $15K to $24K. She is Methodist.

**Housing event.** S put her house on market in July, got an offer, but offer fell through 3 weeks ago. Released the buyer and almost immediately someone else put an offer on the house. Expects to be done with it in the next couple weeks. Cousins helped her clean out the house and sell all her stuff.
B.7 Erma

Erma is 66 year old widowed African American female who lives alone. Her husband died 20+ years ago from a heart attack. She has “gentleman callers” and a man who currently “thinks” they are dating. Erma has 1 son who lives away; he calls every day and she sees him several times a year. She also has a daughter who lives in the area; she talks to her nearly every day and sees her and her children once or twice a week. She lost a son at birth in between the other 2 children. Erma has 5 siblings who have passed away and 2 who are still living. She sees her 2 brothers every week and talks to them at least 3 times a week. She also has about 10 to 12 friends she sees and talks to weekly and has weekly contact with her extended family. She lists her oldest brother as a confidant. Erma’s parents separated and she was raised primarily by her mother. She has a college education and is Baptist.

No events or difficulties.

B.8 Inez

Inez is a 77 year old widowed Caucasian female who lives alone. Her husband died about 20 years ago and she has not dated since. She reports being a family-oriented person. She has 6 living children, had one miscarriage, and one son that died of colon cancer 10+ years ago. Inez sees or talks to her 4 daughters every day. She talks to her sons weekly and sees them every couple of weeks. She has 2 sisters and 1 brother (in addition to 2 deceased sisters). She talks to her sisters daily and sees weekly. Inez has an active social life. She talks to her old neighbor and this woman’s daughter every other day. Inez usually has weekly phone calls and monthly visits with a high school friend, but they have recently been having more frequent contact due to her friend’s heart attack. Every week, she gets together with other friends at the legion hall and goes to breakfast with her daughter and a group of
friends. She also attends church and church activities (she is on the board) and
watches her grandchildren compete in high school sports. In terms of confidants,
she would pick one of her daughters, whichever is available at the time; no change in
the last year. Inez grew up in the area with her parents and siblings. She completed
high school at age 17 and left home at 18 to get married. She moved to the town
where she currently lives just prior to her husband’s death. Inez has been retired
for about 4 years, after working as a factory inspector for 28 years. She was brought
up and continues to attend the Church of the Brethren.

Health event: other focused. S’s son had a heart attack at the end of August.
He had not had problems prior to this; doctor said it was due to a defective valve
in heart that he was born with. He had to have a 2 way bypass. S was not present
during the heart attack, they called her and she went to the hospital. S did not do
any caregiving.

Health event. In spring, S knelt while cleaning out a flower bed something got on
her and she broke out. Thought it was poison ivy, but MD never confirmed exactly
what it was. They gave her steroids for it. Had the rash for 1.5 weeks. Not painful,
but seeped badly and rose up in blisters.

Health difficulty. Combined health difficulty. S has arthritis, bad in knee. Back
problems - sciatic nerve (daily), narrowing of the spine, arthritis. But it does not
stop her from doing things. Her kids don’t allow her to mow the yard, grandkids
do it. She does not take any medicine; took a cortisone shot in back in July (won’t
take pain pills for arthritis) uses topical medicine for arthritis and finds it to make
pain tolerable. Also, she has high blood pressure. She takes medication for it, she
monitors it at home and reports to doctor. She had been at stroke-level before she
retired and it has come down since then. In the last year, changed medication b/c
it was high (last Nov.), 6 months later it was down.
Health difficulty: other focused. One sister can’t control her bladder - possible kidney problem - for past 6-7 years. Also diabetic and heart patient. Does not have good balance. S doesn’t think she should stay alone but isn’t able to take care of her. She falls a lot and calls S but S can’t pick her up. Last bad fall was a year ago in Nov, took her to hospital with help. She’s fallen twice since - most recently 3 weeks ago. Sister wears a life alert and S is on call-list (calls her daughter first and S second, daughter was mowing lawn).

B.9 Clifford

Clifford is an 80 year-old married Caucasian male. He lives with his wife of 50+ years. He has 4 children; they live in area and Clifford sees them nearly every day. He has 5 brothers and sees them weekly. He also sees his friends every day. Clifford lists friends in general when asked who he would go to if he had a problem; upon probing, he agrees that he’d talk to his wife and children. This is unchanged in the last year. He has lived in the area his entire life and was raised by his parents. Clifford graduated high school and left home at 18 to join the service for 1.5 years. He did not attend college and was not raised in (nor is currently active) in any church. Clifford has been retired for 20+ years from his work as a bar owner and reports a household income of $7,500-14,999. He currently drives Amish on an on-call basis, nearly every day, for pay and has been doing this for nearly 6 years.

Health event. S broke his arm. He and his grandson were flipping over a boat that had ice and water in it. S got caught under the boat and pinned to a steel post. He went to the hospital for X-rays, then went home for a few days. He returned the hospital for surgery - put pins in his arm. He was able to return home the same day. He could not take care of himself right away. His wife assisted him for 4-5 months. He took physical therapy during this time. He was checked out last week and given
the okay. S says his arm is getting better, but that he still experiences pain all the time “feels like run over by truck.” He doesn’t take pain killers very often.

*Health difficulty.* Combined low-level health difficulty. S takes BP medicine, but has been on this for a long time and there haven’t been any changes in the last year. Appears to be under control. Arthritis in his knees comes and goes. Sometimes the pain stops him from doing things, including walking. He doesn’t take medicine and just continues. Says pain is most of the time.

**B.10 Harriett**

Harriett is a 57 year old married Caucasian woman. She lives with her 79-year old retired husband of almost 40 years and their 2 cats. Harriett has 2 children. She sees and talks to her daughter, who lives in town, several times per week. Her son lives in a few hours away, but they talk on the phone weekly. She also has frequent contact with 2 cousins and talks with her “dear friend,” a former co-worker, nearly every day. Harriett has an active social life. She goes to breakfast with a group of friends every Monday and she and her husband get together with another group of friends on Tuesdays. She goes out to eat with her husband and 2 other couples every week or two. She lists her “dear friend” and daughter as confidants; this is unchanged in the past year. Harriett lived in the area her whole life, except for 5 years when her husband was in the army. She was raised by her mother and step-father and had very limited contact with her biological father. She has two younger step-sisters that live out of town. Harriett left home at age 19 to get married. Harriett has bachelor and master’s degrees and retired 5+ years ago after teaching elementary school for 30 years. She reports an annual income of $40K to $75K. She was raised protestant and is part of the First United Church of Christ.

*Health event: other focused.* S’s daughter has knee surgery for arthritis and
spurs. S spent about a week at the house with her daughter and graded papers for her daughter.

**Health event:** other focused. S’s daughter has foot surgery a month after knee surgery. S spent about a week at the house with her daughter and graded papers for her daughter.

**Death event.** S’s cousin, who lived in town, died. S was on vacation when cousin died and did not return for the funeral or provide any care. Since S returned, she has been helping the cousin’s wife.

**Relationship event.** S’s daughter remarried. S is supportive of the marriage and is involved in caring for the step-grandchildren.

**Health difficulty.** S has had 2 open heart surgeries (2000, 2006). Has trouble with low BP. Tires easily and condition has worsened over past several years. Doesn’t prevent her from doing things. Also has trouble breathing related to water retention around the heart.

**Health difficulty.** S has been experiencing bladder leakage for past 2 months. She started a new medicine last week and can tell the difference. Condition doesn’t prevent her from doing things, but is embarrassing.

**Health difficulty.** S has arthritis. 4 knee surgeries. Is now having a lot of pain in her feet as well. Pain is daily and prevents her from doing things.

**Health difficulty:** other focused. S’s husband has diabetes. He takes medication and tests every day. Appears to take good care of himself.

B.11 Miriam

Miriam is a 74 year old divorced Caucasian female who lives alone with her dog. She has one son who lives nearby and whom she sees and talks to several times per week. She talks to her younger sister and older brother frequently and sees either of
them at least once a month. Miriam has a friend whom she plays cards with every
Friday night and another friend whom she visits occasionally that lives a mile away.
She has many phone conversations with friends every day. Her confidant is a friend
of 40 years whom she sees every 2 weeks. Miriam was has lived in the Midwest all
her life and was raised by her mother and stepfather, as her biological died when
she was 7. Miriam had multiple jobs including a hairdresser and a jail, convenience
store, and shoe store manager, but is now retired. She was raised protestant and is
as spiritually strong now as she has ever been, especially since having been diagnosed
with terminal ovarian cancer.

Health difficulty. S has stage 4 terminal ovarian cancer. At age 38 S had her
uterus removed due to cancer cells. If it were today she would have had every-
thing taken out so she would not have developed ovarian cancer. She has been on
chemotherapy for 8 years and has struggled a lot in the past year with the side effects
of the chemo. At one point she was incredibly weak and could not leave the home
and at another point she reported that she developed hematomas from Coumadin
that was used to prevent flow of blood to the tumor). Was taken off of Coumadin,
but took several weeks for pain and swelling to dissipate. While on Chemo she is
sick to the point where she cannot go out and do anything 1 out of every 3 weeks.

Health difficulty. S has had arthritis for 10 years. She can no longer open bottles
or door handles very easily. It has gotten worse over the past year. S doesn’t take
any prescribed pain meds, but does take OTC pain meds.

Relationship event. July 2008 S’s son was married for the second time in a small
wedding. There was only a ceremony and no reception. S gets along well with her
new daughter in law.
B.12  Hazel

Hazel is an 86 year old widowed Caucasian female. Her husband died about 4 years ago and she currently lives alone. She has 4 daughters. One of her daughters lives in town and they talk and see each other every day. She lists this daughter as her confidant. Hazel’s other 3 daughters live out of town; she sees them about once a month and talks to them on the phone weekly. She has lots of friends and social interactions. She is very active, belongs to the red hats (a society for the promotion of older women), and is in a choir that rehearses each week. She was born in the Midwest, was raised by her parents, and had one older sister who died. Hazel left home at 19 to get married. She is currently retired and is Catholic.

Health difficulty. High blood pressure- under control with meds.

Relationship difficulty. Daughter has been married 5 times and having a commitment ceremony with her current boyfriend. S is upset about the commitment and wishes that she would just marry her boyfriend. S spends a lot of time thinking about the commitment, but does not talk to anyone about it. Confidant (other daughter) will not attend, in protest of the commitment. S does not have a problem with the man daughter is with.

B.13  Aida

Aida is a 66 year old divorced Caucasian female. She currently lives alone. She has three children whom she talks to nearly every day and sees a few times each week. All the children live locally. Aida has 4 grandchildren. She takes care of her 7 year old grandson 3 days per week after school and sees her other grandchildren frequently. She also talks to her 95 year old mother a few times a day and sees her once a week. Aida moved a year ago and is having trouble getting acclimated to the neighbors and making friends. She reported that her confidant would be a
woman named a female friend with whom she talks on the phone “all the time.” Aida grew up an only child and has lived in the area her entire life. She has a high school education and is currently retired. She has been on disability for 10+ years due to MS and collects retirement pension within the range of $15K-$24,999. Aida is Catholic.

_Housing event._ Built a new home. Has an acre all around (privacy). Very happy about the change and move. Sold her other house without any problems. Very thankful. Moved just down the road so friends can still stay in touch.

_Health event: other focused._ Daughter’s port for chemotherapy was giving her trouble- leakage from chemo that surrounded her heart. New port put in and is going well. Doctor has not changed the prognosis. No caring responsibility.

_Health difficulty: other focused._ Daughter has had Cancer for seven years. Had a hysterectomy, chemo and radiation. One week before the 5th year she was having stomach pains. Cancer went from uterus to lungs. The condition is too severe for surgery or radiation. She will be on chemo the rest of her life. Was given couple months to live and it has been over two years. Called one day to tell S she thought she was dying when having difficulty with her port.

_Health difficulty._ S has had MS for 43 years, on disability. It gets so bad that she can’t even write her name. Treatment (ACTH) helped, but cannot use this anymore because of the scar tissue. Last 30 years has been a slow downhill progression, so slow that she can hardly notice.

B.14 Ella

Ella is a 67 year old married Caucasian female. She lives with her husband of 20+ years, a grandson (age 19) and an aunt (age 95). This is her third marriage. She married her first husband, who had an alcohol problem, at age 22 and had a son.
and daughter with him. Shortly after divorcing her first husband, Ella married a physically abusive man and divorced him as well. She raised her children alone. She talks to her daughter on phone at least every other day and sees her every couple months. She sees son about 4 times per year and talks to him rarely via email. Ella has “ya ya” friends that she spends a good deal of time with and several very close friends who she is comfortable talking with. She names husband and friend as confidants. She has one sister, 2 years younger and thinks sister is ”self centered”.

Ella graduated high school at age 17 and moved out of the house. She attended nursing school, but did not complete. She is currently working as a real estate broker 7 days a week and has been in this line of work for 20 years. Her husband (age: 76) is also still working. Ella was brought up Methodist and now is Lutheran.

*Relationship event.* Grandson (who lives out of state) had to transfer schools during senior year and S had struggled to get him into her local school. Grandson called grandma begging to come live with her. Has no problems with grandson, S states he has a good attitude, he is respectful

*Health event: other focused.* Husband had knee replacement. Brought him home from hospital and pain meds were poisoning his kidneys. Had to be transported by ambulance to hospital shortly after and spent 4 more days in hospital. S slept at hospital and was scared to leave him there except for some things that needed to be done at work. When husband came home, S was responsible for caring for him. Came through surgery fine and is now completely healed.

*Health event: other focused.* Aunt went to hospital. Nurse came to stay afterwards. In hospital for 3 days due to bladder infection.

*Health event: other focused.* Aunt went to hospital again. Because she was tired, had fluid build up due to congestive heart failure. In hospital for 3 days to get stabilized.
Death event. Grandson dies. Grandson (age 30) was secretly using cocaine and heroin, S states there were no signs of drug use prior to death. Death was publicized on news before family was notified. S worries about grandson’s parents and feels inept at helping them work through it. S also worries about how husband is dealing with the death, but says he is starting to improve.

Relationship difficulty. Strained relationship with daughter-in-law. S doesn’t like the way daughter in law treats grandson (who lives with S). S thinks daughter-in-law does not want to be a mother; too career oriented. S worries that daughter-in-law doesn’t nurture grandson enough. S thinks son is bizarre, has no common sense, and S wishes he was more like her daughter. S is disappointed in her son and daughter in law’s parenting skills and worries about the way her grandson is treated compared to his sister.

Health difficulty: other focused. Aunt (age 95) living with S since 2000. Aunt is very independent (cooks, takes dog out) and does not require a lot of care from S. Aunt in hospital twice in last year. Aunt had lost control of bladder and had difficult time, S had to have house professionally cleaned. Has a nurse come to house to keep an eye on the bladder infection. Adds some financial strain with medical bills, but S is able to manage. S is aggravated because Aunt wants her independence and doesn’t follow doctors orders, causes some stress because S worries about her.

B.15 Matilda

Matilda is a 71 year old single Caucasian female. She does not have children and lives alone in a senior citizen community. She does not have any relatives in the area, but speaks to her sisters every two weeks on the phone and her brother every other day. She keeps in contact with another sister via email. She also talks to a "double cousin" via email and phone at least once per month and communicates with her
extended family via "circle letters" every 3-4 months. Matilda has frequent contact with her ex-coworkers. They talk on the phone, email, take trips together, and go out for lunch. Her best friend, an ex-coworker and former neighbor is currently in the hospital for a heart bypass. She lists this friend as a confidant; this is unchanged in the last year. Matilda was the oldest of 8 children (2 sisters and 2 brothers are still alive) and was raised by her parents. Her family move around a lot as child and lived in various states. She left home at age 19 to go to college, after some debate with father and working to raise money for her own education. She moved to the area to teach after college and got a master’s degree. Matilda retired about 10 years; she was a school teacher for 30+ years. She is Baptist.

*Health event: other focused.* Best friend is in Memorial Hospital for heart bypass. She’s been in for 5 days. It was an emergency procedure. She had ongoing health problems and needed transfusions for a while, became weaker over time - she’s been going downhill for about 1.5 years.

*Health event.* S had cataract surgery in July. Best friend helped take care of S. S still can’t drive at night, as it is not safe.

*Death event.* Brother, living in Georgia, died in early part of summer (June). Brother died 1 day before family reunion, he planned it, they were together for the funeral instead. S was his closest sibling. They spoke on the phone monthly. He had cancerous “wart” - skin cancer - that spread fast, avoided the doctor, got some help. They knew about it for about a year. S helped with the funeral.

*Health difficulty.* S said she cut down on night driving b/c doesn’t need to do it. Avoids traffic (uses back roads) when has to drive at night. Had been having trouble with vision for about a year but doctor says it’s not related to diabetes. Walks instead.

*Health difficulty.* Combined health difficulty. Has been going to rehab to work
on balance. Her hip gives out on her and she nearly falls. Last week, didn’t monitor
her insulin carefully and her legs gave out. She made it back home and sat on bench
for a bit and checked blood sugar. Sometimes forgets to eat when she’s supposed
to. She’s been diabetic for 4 years. S is concerned about her weight. Hurried to
get to the door the other day and fell, not hurt. Over the last month or so, she’s
been relying on the walls when walking to restroom at night. Unsteadiness doesn’t
interfere, but said if she’s not feeling up to it, she’ll just get back into the car and
go home and try another day.

*Health difficulty.* Had been having trouble with vision for about a year but
doctor says it’s not related to diabetes.

B.16  Sadie

Sadie is a 76 year old widowed Caucasian female. Her husband died 5+ years
ago, she lives alone, and is not currently dating. She has 3 daughters who all live in
the South Bend area. She talks to her daughters at least once a day and sees them
once or twice a week. She has 2 cousins she talks to weekly and monthly. Sadie has
friends that live locally whom she talks to about twice a week and sees 1 or 2 times
per week. She lists 2 of her daughters as confidants, particularly for daily concerns
and financial problems. Sadie has lived in the area all her life. She graduated high
school at age 18 and left home at 20 to get married. She currently works 1 day a
week and fills in on vacations at an auto parts store where she does filing. She has
been working there for 40 years and switched to working part time 10+ years ago.

*Health event: other focused.* Friend had heart attack in 2/08. He is fine now,
had stints put in and may need bypass. She works for Jim and sees him a couple
times/week, seldom talks to him on the phone. S was in FL with friend and his wife
(for 3 mo) when he had the heart attack. They have been “long time friends”.
**Death event.** Brother in law passed away. He lived in this area and they were in regular contact. He had heart problems, after open heart surgery “everything went wrong” and he died. She was seeing him 1x/week when he died. She didn’t help with care or funeral, but had been taking him meals.

B.17 Beatrice†

Beatrice is a 75 year old divorced Caucasian female. She has been married three times. Her first husband died when she was 49. She remarried at 51 and divorced her second husband at 55. She married her third husband at 58 and divorced in 5+ years ago. She has one daughter and 2 sons. One of her sons, aged 49, lives with her and is employed in some construction-like trade. She sees her daughter, who lives nearby, twice a week and talks to her on the phone every day. She talks to her brother, who lives out of state, once a week and keeps in contact with her grandchildren. Beatrice also has several friends she sees regularly. Most of these friends are from the area and she met most of them through the Parents without Partners group she joined 20-30 years ago when her 1st husband died. She also has a friend from work she gets together with once a month. She lists her daughter, as well as her son and two of her friends, as confidants. She would have included one of her high school friends as a confidant last year, but they had a falling out Christmas 2006 and then friend moved away and recently died. Beatrice was raised by her parents. She graduated from high school and took 1.5 years of secretarial courses. She finished schooling at 19 and left home to marry at 22. She retired from her job in a word processing department at 61 and is now employed 20+ hours per week as a cashier at Walmart; she has worked there for 5 years. Beatrice reports an income of $15,000-$24,999 on the questionnaire. She was not raised in any religion and is not currently a part of any church or group.
Crime/legal event: other focused. Last November son went to see his girlfriend and was going to move some things out. Girlfriend called the police, said S’s son was going to harm her. Police came, girlfriend’s father was there. Girlfriend didn’t press charges, but prosecuting attorney looked at police reports and son had to go to anger management classes (started in Feb., must attend until Oct.). (Son and girlfriend had arguments before; girlfriend had to do highway clean-up.) Son had to go to court over the incident and had to pay for a lawyer, cost him several thousand dollars.

Death event. S and this friend had been friends since high school and this was one of S’s main confidants. They had a falling out over another friend around Christmas 2006. Friend lived in area after the falling out but moved away last fall. Friend died 2 months ago; S chose not to attend funeral. Still has thoughts about her. They hadn’t spoken in 1.5 years.

Health difficulty. Combined health problems. Gout/arthritis in thumb episodes - has went to ER for gout attack b/c thought she had a broken bone (prevents her from going to work when she gets an attack, has had 4x in past year, would like MD to send her to specialist, but he doesn’t seem that concerned and just gives her Rx. Last attack in April, laid her up for 3 days. Hurts to put weight on her foot. Calls MD and he calls in Rx to pharmacy. Missing work is problematic b/c of Walmart policy re: days off. Reluctant to call in. Has completed intermittent leave of absence form, no trouble yet but other people who have missed 3 days have been called in for coaching. May have to quit work but likes it. Right now is counting on money.) Neuropathy in feet (tingly, itchy, hot and cold, stinging sensation that is uncomfortable; doctor says it goes along with diabetes for some people; constant for her - occurring during the interview as we’re talking, started 4-5 years ago). Cancer of kidney (2 years ago), removed kidney, remission since then. Diabetes (3 years).
**Relationship difficulty.** S’s son who lives with her had worked as a well driller for 18 years, but 3 months ago decided he wanted to do something else. Since he changed jobs, he hasn’t been contributing to household bills. S hasn’t said anything to him yet. S able to manage financially for now, but something needs to happen. Son has girlfriend that he stays with for a few days and then comes home. He needs to move on. S wants him to move out, but doesn’t know how to handle it.

**Relationship difficulty.** S’s daughter doesn’t say anything about son’s issues with girlfriend and court, but S knows daughter doesn’t like it b/c believes it’s hard on S. S wants daughter and son to stay close. S has another son who lives in Hawaii, hasn’t heard from him in 5 years. Has tried searching for him over internet. Neither sibling in contact with him. S doesn’t know what to do. S had visited him in Hawaii a few times, son came home to help S when last husband was ill. Son acted different then, S suspected drugs. Son seemed angry, hates it here. He returned to Hawaii. When S called, he said “I don’t know any of you.” Nothing seemed to have changed. Daughter told him he was worrying mom.

**Hortense†**

Hortense is a 72 year old divorced Caucasian woman who lives alone. She has been divorced 50+ years and is not currently dating. Her ex-husband passed away 12 years ago. She has 2 children. She sees her son and daughter-in-law about once a week and talks to them on the phone 3 times a week. She talks to her daughter on the phone about 4 times a week, but only sees her about 4 times a year. She also talks to her sister twice a month. Hortense sees her sister-in-law twice a week and talks to her on the phone 3-4 times per week; she named this sister-in-law as her confidant. She had a close friend she saw very frequently last year, but she now only sees her twice a year because the friend “got busy.” Hortense was raised
by her parents and is the youngest of 3 children. She graduated high school at 17 and received no post-graduate training. She then got married and went to live with husband’s parents. She is now retired from working as a supervising housekeeper at a hotel. Hortense is Catholic.

*Relationship event.* Loss of contact with close friend. S began seeing much less of a close friend. Friend still lives in the area, but volunteers now and has some family difficulties. S says that it is okay and she understands. Now she sees this friend only 3-4 times a year.

*Health difficulty.* Fractured disk. S states disk is 50

*Relationship difficulty.* S worries about daughter. Daughter is unhappy because husband is bipolar and “explodes” about twice a week. Also worried about daughter’s finances and wishes she could help because daughter is only barely able to pay bills.

B.19 Zelda†

Zelda is a 68 year old married Caucasian female. She lives with her husband, who is disabled and stopped working almost 5 years ago. She has one daughter, who lives out of state. She talks to her on the phone every day and sees her every 6 weeks. She sees her sister in law every couple of months, talks to her on the phone twice a week, and emails regularly. She also has one other friend who she speaks with regularly. Zelda attends a group with women she considers her friends, but does not have contact with them outside of the group. She lists her daughter as a confidant. She has several friends who died in the past year; 3 of them would have been considered confidants. Zelda was raised in a family of 11 children. She reports having a rough childhood which included abuse and alcoholism; She may have been raped as a child and her best friend hung himself. Zelda graduated high school and
has some college education. She is retired from her job as a sales instructor/public speaker/writer/business owner. She stopped working 20+ years ago when she was diagnosed with chronic fatigue syndrome. She currently makes between $7500 and $15000 yr. Zelda was brought up Catholic, but is not longer a part of the church.

*Relationship event.* S wrote a letter to her sister stating that she did not want a relationship with her anymore because of sister’s addiction problems. S did not hear anything from her sister after sending the letter. S assumes that sister just doesn’t care.

*Health event: other focused.* Partner’s kidney failure put him in the hospital for five days. Doctors worked day and night and one of the doctors was almost in tears. Kidneys started working miraculously on the fifth day in the hospital. S was with P in the hospital.

*Health event: other focused.* Partner’s first congestive heart failure. He periodically has CHF. Doctor’s can’t believe he is alive. Went to the hospital for 3, 4, or 5 days during both of these episodes. The problem is not able to be repaired.

*Health event: other focused.* Partner’s second congestive heart failure.

*Health event: other focused.* Partner had surgery to remove a blockage in the carotid artery- said that it would fill back up again anyway. Husband was much better after the surgery but quickly deteriorated after about one week. Surgery was necessary or there would have been a stroke or heart attack

*Health event.* S felt like she was having a heart attack. Went to the hospital and found out that it was pleurisy.

*Death event.* Friend, aged about 90, died. S travelled a lot with this friend.

*Death event.* Another friend died. S stayed with her at hospice. Giving support to her and the family. S Attended the funeral.

*Death event.* Another friend died of lung cancer. S was her coworker and friend.
Health difficulty: other focused. Partner has diabetes that is not likely well controlled as several other health problems have come as a result of poor control. He had kidney failure in August, 2007 and an ongoing problem with gastric paresis. The kidney failure put him in the hospital for five days. Doctors worked day and night and one of the doctors was almost in tears. Kidneys started working miraculously on the fifth day in the hospital. Gastric paresis causes him to vomit 3-4 times per day. They cannot fix the problem and is a problem related to diabetes. Overall S has to make sure he eats, baths, sleeps, and gets outside.

Health difficulty. S has Chronic Fatigue syndrome. It has improved but continues to leave her with no energy and prevents her from doing anything some days. This happens roughly 2 days out of 3 weeks. The medication that she takes for the CFS is possibly causing her to fall. When she is having a "spell" she would have to cancel all of her appointments for that day.

Health difficulty. S has arthritis in hands and she cannot do anything (e.g. writing) if it is bad. She takes aspirin to help the pain. More frequent this year compared to last.

Health difficulty: other focused. Partner has heart disease and many problems related to the disorder. He has had congestive heart failure twice in the last year, followed by a blocked carotid artery, and a transient ischemic attack (TIA).

B.20 Myrtle†

Myrtle is a 76 year old widowed Caucasian female. She lives alone with her two cats, which she claims are family. She has one daughter and two grandchildren who live out of state and two sons who live locally. Her daughter is a lesbian and Myrtle adamantly rejects her daughter's lifestyle. She does not speak to her very often, but claims to be very close to her granddaughter who lived with her for some
time. She speaks with oldest son almost every evening and the younger son once a week. She sees her sons about once every two weeks. She also has two close friends she sees twice a week and talks to every couple of days. She considers one of these friends her confidant. Myrtle’s siblings and parents are all deceased. She is retired and makes between $7,500 and $14,999 a year collecting social security and a small pension from her previous employer. She also states that she has $26,000 saved and reports great difficulty maintaining her finances. Myrtle is Christian and attends church and a church group weekly.

Health event. S felt very sick and was vomiting a lot. Son helped her to the hospital. Stayed in the hospital for one week following admission. S reports that doctors stated that her heart is fine, it is her aorta that is malfunctioning.

Health event. S fell and laid on to the floor for two hours before getting to the phone to call for help. S was taken by paramedics to the hospital and had broken her hip. S has fallen several times in her home in the past.

Financial difficulty. S is very worried about her finances. Medical bills including medication and insurance are quite costly for S. States that she is at least $20,000 in debt and can only pay minimum payments on credit cards and other debts. S cannot see her finances ever being resolved. Claims that son owes her $10,000, but knows she will never see that money. S states that she does not eat much to save money and does not go places where she used to go because she cannot afford the gas. S states that she does have $26,000 saved but does not think this is much money. S is able to spend $15/week on her cat food because that is very important.

Health difficulty. Arthritis- limits her ability to do things she enjoys and states that it makes her angry. Afraid to bend over because she may keep going and fall down. She has had surgeries for arthritis in the past. Can’t do things like change the sheets on her bed. Had toe and part of her foot amputated due to osteomyolitis-
bone infection. That is the third time they had to remove bone from her foot. Has had 20 different bone surgeries. Could complicate arthritis. Forced to move due to inability to physically manage her previous home.

Health difficulty. High blood pressure and aorta problems.

B.21  Mabel†

Mabel is a 64 year old divorced African American female who lives alone. She divorced her first husband 10+ years ago; she remarried and divorced 3 years ago after a 5 year marriage. She is not currently dating. Mabel, age 43, who lives out of town. She speaks to him on the phone about once a month and sees him every few years. S speaks with two of her sisters on the phone every day, but doesn’t see them often and speaks to her other sister about twice a month; all three sisters live out of town. She sees several friends, who live in a nearby town, about once a month. She also talks to a close friend every other day on the phone. She lists her counselor and this close friend as her confidants. Last year, she would have relied on this friend as well as another friend, E. She reports that nothing changed in her relationship with these confidants, she just now has a counselor who she confides in.

Mabel was raised in a family of 22 children; she was in the middle. She left home at age 16 and stayed with a friend until the police brought her back to her parents’ home. She also lived with an aunt and reports that her sister, 4 years her senior, brought her up. Mabel left high school at 17, before graduating, but took some college courses. She later attended nursing classes and worked as a nurse, but has not worked as such for 15-20 years. She has been on disability for 7-8 years due to congestive heart failure. She reports an annual income between $15K and $24,999. Mabel is legally blind; the researcher assisted her in completing the questionnaire.

She was brought up Pentecostal, but is now part of the Mormon church.
**Health event.** Returning home from dialysis one day in the winter, S blacked out in front of her apartment door and lay in the hall for 3 hours. A neighbor, returning from work at night, found her and got help from neighbor’s brother to get S up and back in her apartment. S remembered getting ready to go into her apartment and the neighbor talking to her. She’s not sure what happened - maybe her blood pressure or sugar dropped. She hasn’t had any trouble since then.

**Death event.** S’s brother died. S didn’t help with caring for the brother or planning the funeral but attended the funeral. S tried to visit him as often as possible but he didn’t live nearby.

**Housing event.** S moves to Florida to live with friend.

**Housing event.** S returns to Indiana after conflict with friend.

**Relationship event.** S reports, “I fired my girlfriend.” They had been friends for 35 years, but S felt she could no longer trust the friend. S went to live with this friend in Florida in September-October, it wasn’t a good situation. She had intended to stay there long-term. S decided to leave and move back home. While they were living together, the friend helped S to record her will. S reports that the friend “told everybody about it,” including sending it to S’s sister via email. They haven’t talked since January, when S left. S has changed the will on her own. S has no intentions of speaking to friend again.

**Health difficulty.** S has been on kidney dialysis for 6 years. She reports that the kidney problems are related to her high blood pressure and diabetes.

**Health difficulty.** S was in a car accident in spring 2007 - unclear on precise date. Someone was taking her to dialysis and another car ran into the passenger side where S was sitting. The door was pushed into S’s side. S continues to have physical therapy. A PT comes to her apartment twice a week.

**Health difficulty.** S has to give herself insulin up to 6 times per day for her
diabetes. She has a machine at home that helps her monitor her levels. The doctor put her on a new medicine. S also has neuropathy related to her diabetes. She reports it being very painful. She hadn’t been having problems with it for a while, but in the last month it has reappeared. S takes medicine for it and it seems to be effective.

*Health difficulty.* S has been legally blind for several years. Has had several surgeries on eyes related to diabetes. S relies on friends to provide transportation.

*Relationship difficulty.* S thinks her sister is going behind her back with a friend who made her will. S changed POA from sister to brother in law. S has moved on from conflict.

B.22 Millie†

Millie is a 65 year old married Caucasian woman. She lives with her husband of 50+ years; he is retired. She has three sons and two daughters who live locally. She does not have much contact with 2 of her children due to their busy schedules (jobs). She talks with 2 of her sons several times per week and sees them frequently. She occasionally sees her other daughter, who is reportedly a ”drama queen” and just had a child on April 26th at 38 years of age and miscarried in January 2008. Millie does not have many friends, as she lost contact with her work friends when she retired. She has friends from craft classes who she sees biweekly and talks on the phone with every other day. She lists her husband, along with one of her sons and a sister who lives locally, as confidants. Millie was raised by her parents in a wealthy family. She grew up with her 6 siblings and 5 cousins in the house. She reports that her mother ”had a drinking problem.” Millie took some college education. She retired from working at the Notre Dame Library for 25 years almost 10 years ago and reports an annual household income between $40K and $75K. Millie is Catholic.
**Relationship event.** Daughter got married without telling anyone in June 2007 due to unexpected pregnancy. Had an argument with daughter about it but does not seem to have lasting negative effects on their relationship.

**Reproduction event: other focused.** Daughter miscarried in January 2008. Daughter didn’t let anyone know, not even kids. S did not help, but found out about it later.

**Health difficulty.** Diabetes- S has not managed her diabetes well. Doctor has said she needs to do better and has put her on a different medication for better control. Onset is unknown, but has had diabetes for at least 8 years due to her report of having to hide it while working. She has check ups every 3 months. S legs swell and she has to wear hose to prevent swelling which has led to a blood clot for S. Change point: S had a blood clot. Sister Called 911 after talking with S on the phone and was short of breath. Husband was at work and he retired in 2002 so it was out of the study period.

**Health difficulty.** S has been wearing a catheter since last October 2007 because she is not able to control her bladder. Before the catheter she was “flooding everywhere” and now she is very appreciative of the catheter. S reported that it is not related to any other health condition. S has made an appointment for the issue and the doctor may prescribe a medication that will help her. S has frequent urinary tract infections which are, at least partially, from having a catheter in all the time.

**Health difficulty.** Combined pain difficulty: Osteoarthritis, Fibromyalgia, and Irritable Bowel Syndrome.

**Financial difficulty.** Property taxes doubled right last year. Brother in law helped them out a lot. Had to get a second mortgage to cover the taxes they owed and after several months it was straightened out.

**Relationship difficulty.** Tension between children’s families. S’s son is having an
ongoing feud with brother in law and sister about work done on his house. They
don’t speak to each other and son will not allow S to speak about daughter or her
family around him. Daughter tried to help out and encourage the two to make
amends. Daughter was not successful.

B.23 Milton†

Milton is an 82 year old widowed Caucasian male. His wife died almost 10 years
ago and he currently lives by himself with his cat. He moved to his current home
in a senior community about 18 months ago. He has 2 sons who live out of state.
He talks to them weekly. One son visits once a year and the other visits 2-3 times
a year. Milton doesn’t have other family contacts. He has friends from church and
a male chorus and 3 friends from work that he sees on a weekly basis. He also gets
together with his old neighbors once a week. Milton is active in the Lions Club and
men’s activity club. He bicycles regularly and drives others as a volunteer. He lists
both sons as confidants; this is unchanged in the past year. Which son he would go
to depends on the kind of problem as one is an attorney and the other is a CPA.
Milton was raised by his parents and has lived in the area his entire life, except for
2 years in the military for the peacetime draft. He graduated high school at 18 and
did not pursue other training He left home at 28 for the military and married at
30. He has been retired for 20+ years from his work as managing Kroger stores.
He worked for the company for 40+ years, starting from age 16. He reports an
annual income of $40K to $75K. Milton recurrently mentions that his “objective”
over the last year has been to stay active and keep from isolating himself. He was
raised in the Lutheran and Nazarene churches, but converted to Catholicism when
he married and is still part of the Catholic Church. **S sings during interview**

*Health event.* He had out-patient surgery for skin cancer on his ear about 3
months ago. His barber noticed the issue and told him to have it examined. S’s primary doctor sent him on to a specialist. The issue was not a mole but some sort of a scab that would bleed and dry up but not heal. Tests revealed the portion removed was cancerous. The doctors don’t seem to have any concerns for spread of cancer.

**Accident event.** S had an accident on his bicycle in the fall. Following his hospitalization, he was not supposed to be driving a car. A friend took care of his cat while he was away. Upon returning home, he was concerned about not having supplies for the cat and went to the supermarket (though in reality he had given all the supplies to the friend and they’d been returned with the cat - his memory was affected by the procedure). He rode home with his bags on the handlebars. A car may have turned in front of him, he can’t remember. He fell and hit his head. He was not wearing a helmet. Someone called an ambulance and was treated as an outpatient. He was not knocked unconscious, but had a bad bump on the head. It took a while to clear up.

**Leisure-related event.** S does not have the best relationship with leader of his activity group. The leader criticizes people by name. Recently, the leader mentioned that S’s friend and S were reading the materials instead of looking up and the leader does not approve of this. S felt like walking out but threw his book across the room instead. The director said he didn’t appreciate that. S said “too bad.” His plan for now is to hold his temper and see how things work out.

B.24 Annabelle†

Annabelle is a 68 year old divorced Caucasian woman. She has had 3 divorces, the last of which was 25+ years ago. She currently lives alone with her 2 dogs. She has 7 children; all live out of town. She sees her sister, who lives within walking
distance, once a week to get her hair done. Sister’s husband is sick, so she is unable
to go out very much, but they talk on the phone 5 times a week. Annabelle also
talks to her twin sister, who lives out of state, on the phone at least once a week
but rarely sees her. She also has a friend that she has known for 12 years but says
this friend only comes over to talk about herself. She lists her confidant as her
counselor at MC. Annabelle’s parents separated when she was a toddler and she
grew up in her grandmother’s house with her mom, siblings, grandmother. She met
her father when she was a teenager. Annabelle left home at 17 to get married and
was pregnant when she graduated high school.

Health event: other focused. S’s daughter’s boyfriend calls police to S’s house
because due to daughter’s excessive alcohol consumption. Daughter taken by am-
bulance to Madison Center.

Health/treatment event: other focused. Second instance, about 1 month later.
S’s daughter received inpatient treatment for alcohol abuse. Daughter’s boyfriend
called an ambulance for her and they had to intubate.

Health event. Endoscopy to fix hiatal hernia and acid reflux. Did not work this
time.

Legal event. S appears in court and is granted guardianship of S’s daughter’s
children

Legal event. Court hearing because S’s other adult children wanted custody of
grandchildren in S’s care. S states that her other children are just as irresponsible.
Judge told other children they had no case.

Health event. S has arthroscopic surgery for knees. No pain afterwards, quick
recovery

Relationship event. S’s daughter and daughter’s two kids and boyfriend move
out.
Relationship event. S’s relationship with daughter deteriorates after daughter is released from Madison center. S no longer sees daughter or grandchildren.

Relationship event. S’s son moves out when S asks him to leave following a prolonged ”visit” (approximately 3 years). Son still not speaking to S.

Housing difficulty. S living in 1 bedroom house with 5 other people (including 2 children). S takes total financial responsibility for the home.

Housing difficulty. S’s neighbors owe S money and are suspected of stealing money from S. S does not have the financial security to provide this support to neighbors.

Financial difficulty. S has financial difficulties, compounded by supporting 5 other people and lending money to neighbors.

Relationship difficulty. S’s relationship with family is strained. She rarely talks to most of her kids and only sees the kids and grandchildren on special occasions. S reports that her ex husband brainwashed her children into hating her.


B.25 Missy†

Missy is a 64 year old single Caucasian woman. She has lived with an elderly friend (age 85) for 20 years. She sees mother, who lives in town, every couple months and talks to her on phone once every couple weeks. She has a friend who helps her pay her bills online and currently sees her about once a week. She also sees this friend’s husband a couple times per month. Missy has another friend she sees about once a month and talks to on the phone every couple weeks. She lists Dorothy and the friend that helps her pay her bills as confidants. Missy has lived in the area all
her life. Her parents separated when she was 3 years old and she was raised by her 
mostly by her mother, but lived with her dad for a few years. Grandparents helped 
out when she was living with mom prior to age 13. She left home at age 18 to get a 
job and live on her own. She has vocational education and reports an income under 
$7,500. Missy has been unable to work for 15 years and is currently on disability. 
She was brought up Lutheran, but is now Baptist.

Health event. Hospitalized for diarrhea and rapid heart beat late May 2008. 
Changed medications for diabetes.

Health event. Hospitalized again for same heart problems. Spent 3-4 days in 
hospital. Found no firm diagnosis for problems.

Health event: other focused. Confidant and roommate hospitalized January 2008 
to have fluid removed from around her lungs. Spent about a week in hospital and 
S had to take care of her when she got home.

Accident/health event: other focused. Confidant and roommate had a car acci-
dent, somebody hit her at a stop sign mid Jan 2008. Totaled her car but didn’t go 
to the hospital. Went to the hospital later though and she started going downhill 
afterswards mentally and physically. Nurses aide came to the house afterwards to 
take care of her. Has recently purchased a new car but doesn’t drive it very often.

Relationship event. S had disagreement with stepfather and now S sees her mom 
much less. They don’t come over the house anymore to see S. S’s mom is upset 
and worried, but S doesn’t feel comfortable around step father anymore and doesn’t 
anticipate any changes in that relationship.

Health difficulty: other focused. Confidant and roommate put on oxygen May 
2007, maybe for emphysema. Increased the amount of care that S contributes. 
Roommate used to do all driving, but now she rarely does. Had not been able to 
get rides until about a month ago and now has a service that can help give rides
for medical appointments. Roommate still helps out with financial assistance to the household.

*Health difficulty. Combined heart health problems.* S had blood clot to the lung about 2 years ago and now has continued problems with her lungs. Takes Coumadin every day. Sees Dr. regularly for monitoring. S can manage illness pretty well, but breathing troubles interfere with her ability to do many things. Some sort of heart problem that has put her in and out of hospital. Maybe a heart murmur. She has been on BP medication for high BP for a very long time. Just recently had meds changed and doesn’t know how they will work yet. No major concerns about BP.

*Health difficulty. Combined diabetes-related problems.* S has had diabetes for quite a while. Takes insulin shots 4x/day. Adheres to special diet but has been easier since “meals on wheels”. Kidney only works at 70%, sees a specialist every 3 months. Not on medication or dialysis for problems.

B.26 Ethel†

Ethel is a 62 year old single African American female. She lives alone and describes herself as single, never married, but has been dating the same man for 4 years. She does not have any children (one died soon after birth), but raised a great niece who left about a year ago for girls’ school. She talks to her sister, who lives in town, several times per day and sees her a couple of times a month. She describes her sister as a loner who likes to be left alone. Ethel does not report any other contact with relatives. She sometimes visits with a male friend in a nearby town for a couple of weeks at a time. They talk on the phone “20 times a day thank God for free long distance!” She visits him about once a month and he also visits her. She also lists another close friend she sees once a week and talks to every day. They have been friends for 3 years and Ethel sometimes says with her. She lists this
friend as a confidant. She talks to other people, but no other close friends. Last year she would have added her previous case manager, whom she had known for 3 years, to her list of confidants, but she was reassigned to a new case manager who is not like her old one. Ethel was born and raised out of state. She was raised by her parents and left home after graduating from high school at 18 to go near her brother to start work. She did not have any post-school training. She moved to the area 5+ years ago after her boyfriend of many years died. She says she thought about or attempted suicide after that and said they were “putting her up in a mental ward.” So, her sister encouraged her to come here. Ethel is not currently working; she has been on disability since her coma 5+ years ago. She worked last year in the kitchen at an adult day-care center; she had worked there for 2 years. She then became sick, had back surgery, and didn’t return to work. She report making less than $7,500 per year. Ethel is Baptist.

Health event. S had back surgery because she had a pinched, slipped disc (she can’t remember). S came home after a day or so after the surgery, she cared for herself. She says the doctor bored holes and put cement in there, didn’t cut her. She says the surgery went well, the pain is still there, but not like it was. S could care for herself and get around after the surgery. Aggravating but mostly gets by. Sometimes she takes Vicodin, maybe about twice a week she takes it. Worse when it’s rainy or cloudy.

Housing event. S has decided when her lease is up this fall, S says she’ll move to Ft. Wayne. The rent there is much cheaper. She pays 449 here, her friend pays 389 for a nice place there. She is looking forward to the move.

Relationship event. S’s caseworker (who she listed as a confidant) was reassigned in April. S calls her sometimes, but she’s always busy. Expects to get a new case manager in Ft Wayne. Her case manager takes her to doctor’s appt, coordinates
things for her.

*Relationship event.* S and boyfriend got upset and had words with each other a couple of weeks ago but are ok now. This was after S came home from visiting him (?), he changed his number but finally called. S couldn’t get in contact with him during this time. S said she said something to him she shouldn’t have and he changed his number. He told her he didn’t want to be bothered with her anymore. They hadn’t had a fight like this before. She doesn’t expect any changes in their relationship when she moves to Ft Wayne.

*Health difficulty.* S had pain over the summer due to her slipped disc. She still has pain after the surgery. Aggravating but mostly gets by. Sometimes she takes Vicodin, maybe about twice a week she takes it. Worse when it’s rainy or cloudy.

*Health difficulty.* S has high blood pressure and takes medication for it, it’s under control. It was running high, now he’s put her on 2 pills and stays where it’s supposed to. Changed her medicine about 3 months ago. She goes to the doctor every 3 months.

*Financial difficulty.* S has had financial problems. She just takes one day at a time and pays what she can. Sometimes she has to go without thing. She doesn’t get much food stamps, sometimes she doesn’t have food, but she tries to get by. Right now, she doesn’t have much. She only gets $10 in food stamps. She says you can’t even get 2 gallons of milk for that. With $10, she buys some sodas. Sometimes, sugar and coffee. She says she gets what she can and pays her bills. She’s determined to pay her rent, light, and phone. She hasn’t been behind on them. She used to like to go to bingo, she can’t do that now. This change in finances happened in Oct when she stopped working. She gets medication free through some wel-care prescription program; Medicaid and medicare cover her doctor’s visits and surgery. She’s able to cover her bills but food is where she has cut.
Thelma is 73 year old divorced Caucasian female who lives in alone with one cat. She has been divorced for four years after her third marriage which lasted 15+ years. Her previous marriages ended due to husband’s deaths. She has three children. Her oldest daughter lives out of state and she has not spoken with her in 6 months. Her son and youngest daughter also live out of state, but she talks to both of them once a week. She reports seeing her children once a year. Thelma’s sister lives in the area; they talk at least every other day and see each other once a week. She talks to her cousin, who also lives in the area, once a month and sees her on holidays. She also has 2 neighbors she is “very close with” and sees every day. She lists her sister as her confidant. Thelma was born in the area and moved back after having lived out of state for several years. She left home at age 19, attended one year of college, and then got married. She is currently retired from working as a full-time medical transcriptionist for 30 years. Thelma was brought up Methodist, but is no longer part of Methodist church because she felt that she was being judged.

*Health event: other focused.* S sister had lung procedures to help with her pneumonia and a spot that was found on her lung. The surgery took care of the problems she was having with frequent bouts of pneumonia. Pneumonia problem started when she was in the hospital for a heart attack two years ago. S supported sister through the first day or two after the procedure but did not need to help sister in any way.

*Health event: other focused.* S sister had rotator cuff surgery late summer 2007. S stayed and supported her for a week after the surgery.

*Health difficulty.* Combined health difficulty. S reports that she has chest trouble one time per week from her digestive track and anxiety. S takes medication to help with acid reflux and tries to manage her symptoms by not eating large meals. S
feels chest tightness due to anxiety. S also has high blood pressure that physicians are still trying to control with medication. S has been on medication for many years and has recently had an increase in medication to help control her blood pressure.

*Health difficulty.* Combined pain difficulty. S has spinal stenosis, carpal tunnel, and arthritis in her hands, knees, and back. S takes Vicodin twice a day and three times a day when the pain is at its worst. S pain is greater in the winter time. The pain doesn’t prevent her from doing anything.

*Health difficulty: other focused.* S sister was diagnosed with bladder cancer in June 2008. She was having blood in her urine a few weeks before seeing a physician and being diagnosed. The physician has used a scraping procedure to treat the bladder cancer and is not sure if that has remedied the problem. Sister is due to see the physician for another scraping procedure to see if the cancer is gone. S sister is dealing with it fairly well. The cancer does not sound terminal and there are many options for treatment that have not been used on her.

*Health difficulty: other focused.* S son’s wife has been dying from anorexia in the last year. S son calls to discuss the issue and it is upsetting for S. The wife has had many operations that have been as a result of her not eating. Doctor’s are saying that there is nothing more that can be done.

*Relationship difficulty.* S oldest daughter has not spoken to S for six months. This started in Feb 2008 when S insisted that daughter stop badgering S about not visiting her cousin in Elkhart. Daughter hung up the phone and hasn’t called since. Daughter sends gifts but they do not speak to each other. Not expecting to speak soon. The problem may lie with her daughter and not S because the same daughter did not speak to youngest daughter for six years at one point.
Celeste is an 82 year old widowed Caucasian woman who lives alone. Her husband of 50 years died 10+ years ago of Parkinson’s and dementia. She has 2 sons who live out of state; she sees them about once a year. She is only close to one of her sons and talks to him about once every couple of weeks. Celeste has 2 sisters and a brother that live in town; she sees them once a month and doesn’t talk to them on the phone. She also has an elderly aunt in town that she sees every couple of days and talks to on the phone the same amount. Celeste belongs to a knitting group through church and they meet biweekly. She also has 2-3 nursing school classmates that she sees twice a month and talks to about once per week. She lists one of her nursing classmates and one of her sons as confidants. No changes in friend or relative status in the past year. Celeste was born in the area, but moved away for 40 years while married. She moved back 15+ years ago. She was raised by her parents, but lived with her grandparents for a few months to finish school when because her family moved to a new school district. She left home at age 18 to go to nursing school. She is currently retired from full-time pediatric nursing after 25 years. She used to volunteer at the hospital, but had to stop about a year ago because it was too much walking. Celeste was brought up as a Methodist, but does not presently attend any church.

*Health event: other focused.* Youngest sister had spinal surgery around 8/08. Helped take care of her a little after the surgery by cooking and arranged for her to have housekeeping help. Didn’t assist with personal care. S didn’t have to cut down on any of her own things to help take care of her and sister is doing fine now.

*Health event.* S fell in June 2007, was able to get up on her own. X-rays said nothing was broken but she continues to have shoulder pain and PT. Pain doesn’t keep her from doing things.
Health difficulty: other focused. Sister has terminal liver cancer. No involvement in taking care of her because her husband is “particular and private.” Sister has been pretty much able to take care of herself, but things “aren’t going well right now.” Within the last month she has been retaining fluids, “bloating and so forth.” They’ve stopped all medications to get the fluid under control. Has been in and out of the hospital all year. Had a surgery to put stints in and chemo that doesn’t appear to be helping. Doctor gave her 6 months to live when diagnosed. She talks to her on the phone every 2 weeks, but rarely sees her.

Health difficulty. After a fall last year, S continues to have shoulder pain.

Health difficulty. S is having undiagnosed heart trouble. Is not in treatment at this time.

Health difficulty. S has several health problems such as esophageal scarring, arthritis and thyroid tumors

B.29 Claire†

Claire is a 74 year old divorced Caucasian female. She divorced almost 50 years ago after a 4-month long marriage due to her husband being abusive. She is not currently dating and has no children. She lives with a roommate, who has severe memory problems; she has some level of superficial conversation with her roommate. Claire does not have any relatives in the area and has not talked to her relatives, who live out of state, “for years.” She has 5 close friends who she talks to at least weekly. She sees 3 of these friends every other week and sees other friends from work once a month. She has a friend out of state who she talks to monthly and writes often, but rarely sees. She has some other friends that she sees about 3 times a year. She lists a social worker at MC as her confidant, but states she would rather not rely on someone else. Claire has no brothers or sisters. She retired 10 years ago
after working as a nurse for 40+ years. She was not raised in any religion, but is currently Catholic and attends Catholic Mass monthly.

*Relationship event.* S saw an aide “take things the belonged to the company” like A & D ointment. S was surprised and tried to get her to talk about it, but she wouldn’t talk about it. It has changed her relationship and she doesn’t trust the aides anymore.

*Health difficulty.* Has had bladder infection for past 2 weeks. Yesterday was given a medication that caused an allergic reaction. Started new medication today and so far has been fine. Has had 2 other bladder infections this year.

*Health difficulty.* Psoriasis has been flaring up and getting worse lately. Has been pretty good over the last year but always flares up when the seasons change. Was diagnosed at age 21.

*Health difficulty.* S has arthritis that has gotten a lot worse this past year. Takes meds for the arthritis, but will have to stop taking it 2 weeks before her upcoming surgery. Meds seem to control the arthritis but she is also taking pain meds for the knee pain. Pain in knees due to missing cartilage.

*Health difficulty.* S had bronchitis that lasted approximately 3 months. Eventually cleared up.

B.30 Laura

Laura is a widowed 77 year old Caucasian woman who lives alone. She has three children. One of her daughters lives out of the country; she sees her once a year and talks to her weekly. Her other daughter lives locally; they see each other 4 times a week and talk 2-3 times a week. Laura’s son and sister also live nearby; they talk 2-3 times per week and she sees them weekly. She also talks to people in her building and sees friends from church. She lists her daughters as confidants. Laura has lived
in the area all her life. She was raised by her parents as the oldest of 9 children. She left home and married at 19. Laura has been retired for 5+ years from working in the cash office at a department store. She is Protestant.

*Health event: other focused.* Brother had bypass surgery. Since then has been on a pacemaker and doing well. S did not have much responsibility for his care but did call very often to make sure he was okay. Calls less frequently now because he is stable. S was very concerned for his well being.

*Health difficulty.* S had gastroesophageal reflux disease (GERD). S went to emergency room several times and is now under control with Nexium. Was scared to go to sleep. Daughter is helping with the finances of the medicine.

*Health difficulty.* Asthma, sinus. - takes inhaler every night to get to sleep. Has had this for a long time. Condition is consistent. Has to use rescue inhaler in the cold.

*Health difficulty.* High blood pressure- takes medication. Had HBP for a long time. Added more pills recently to better control it. A few months ago. Blood clots- on blood thinners. Has blood tests sometimes twice a week.

*Health difficulty.* Arthritis- quite a few years. Was taking Fosamax, but it caused side effects. Writing is hard to do. Takes Aleve occasionally. Back pain.

B.31 Adelaide†

Adelaide is an 86 year old married Caucasian female. She lives with her husband of 60+ years and her dog. She has 2 sons. Her oldest son calls daily, but lives out of town and visits once every 2 months. Her other son visits every day with his wife. She has a granddaughter that lives in the area; she sees her 2-3 times a week and talks to her on the phone in between. Her great-grandchildren live out of state, but call once a week. She used to go out with friends every week, but has been unable
to do that since her husband had a stroke. She still talks to about 3 couples on the phone (though “not that much”). Adelaide lists confidants as her granddaughter, her son, and a friend. She was born in the area and lived here her whole life. She had 1 younger brother who passed away over a year ago. Adelaide left school in 11th grade to get a job. She moved out of her home at age 22 to get married. She retired 10 years ago from part-time work as a cake decorator and factory worker. Adelaide was brought up Catholic and still active in the church.

**Health event:** other focused. Partner had third stroke (mini stroke) early January 2008. S was not home at the time and they didn’t tell her until the night before she came home. S’s son came to take care of P for 1 week, then other son came to live with him. P now has therapy, but is at home with her and Memorial healthcare is providing a homecare nurse. Medicaid pays 85% and S has no trouble covering the rest. S hasn’t had to do any caretaking except for helping him to bed at night. Prior to this stroke, he had been able to take care of himself. P’s second stroke (5 years ago) was the worst, caused near paralysis on one side of his body.

**Health difficulty.** 5 months ago S noticed “when I walked, everything in my head was loose” (dizzy). After seeing her family doctor and getting X-rays, she was referred to a specialist (neurologist) who sent her back to GP and he told her that she wasn’t getting enough blood to her brain. She may have to walk with a walker eventually.

**Health difficulty.** Combined health difficulty. S has arthritis, has been taking medication daily for past 2 months. Prior to that she was taking OTC meds and states that the pain is “about the same” as with OTC. She states it’s “not that bad” and it doesn’t prevent her from doing things. S has been taking thyroid meds for 1 year.

**Health difficulty.** Combined health difficulty. S has had high BP for “a long
time”. Is on medication, but it has been under control and she only sees the doctor every 6 months for check-ups. S has a clogged artery that cannot be opened up and causes heart trouble.

B.32 Elaine†

Elaine is an 81 year old widowed Caucasian female who lives alone. Her husband was the president of a local college and she was his “right hand person.” She has 5 sons, who do not live nearby. She talks to one of her sons every day and sees him every month. She lists this son as her confidant. She talks to other sons 3-4 times each week. She sees two of them once a year and the other two once a month (possible due to proximity). Elaine sees her local friends once or twice a week. She grew up in Northeast and was the youngest in her family. All of her siblings have died. Elaine has a college education and worked as a teacher before she retired. She is Catholic.

Health difficulty. S has been taking meds for HBP for about a year. Reports that is under control.


South Bend Medical Foundation. (n.d.-b). *C-reactive protein, high sensitivity* (Tech. Rep.).


