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The **E**ffects of Social Support Based on College
Residence

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Maureen Leslie Marks

has been accepted towards fulfillment
of the requirements for

Master's degree in Clinical Psychology

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Date May 17, 1989

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THE EFFECTS OF SOCIAL SUPPORT BASED ON COLLEGE RESIDENCE

By

Maureen Leslie Marks

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Psychology

1989

ABSTRACT

THE EFFECTS OF SOCIAL SUPPORT BASED ON COLLEGE RESIDENCE

By

Maureen Leslie Marks

The differential effects of social support based on college residence was investigated. Sixty-eight women from either a residence hall, or from sorority houses off-campus were used in this study. Social support was measured in two ways. The individual's perceived availability of support was measured, and another questionnaire measured the reported receipt of support as well as measuring various characteristics of the individual's social network. A life events checklist measured stress, a symptoms checklist and life satisfaction checklist were outcome measures. Subjects were assessed at the beginning and ending of the spring quarter. It was found that the sorority house group felt significantly more supported, and received more supportive behaviors than did the residence hall group. In addition, the sorority house group experienced less psychological distress and more life satisfaction over time than did the residence hall group. It was concluded that individuals fare better when in a closely bonded network.

This work is dedicated to my parents, Allan and Sharon Marks, and to Bret Cash whose constant love and support continues to help me achieve my goals.

ACKNOWLEDGEMENTS

The author would like to express her deep gratitude to Dr. Robert A. Caldwell for his patience and wisdom throughout this project. His guidance on all facets of this thesis was very much appreciated. Thanks is also extended to Dr. Raymond Frankmann for his assistance with the statistical aspects of this study, and to Dr. Thomas Reischl for his assistance with the theoretical aspects.

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INTRODUCTION

Over the past fifteen years, there have been many research studies indicating the beneficial effects of social support for the individual (Brownell & Shumaker, 1984; Cassel, 1976; Cobb, 1976; Cohen & Hoberman, 1983; Depner, Wethington, & Ingersall-Dayton, 1984; Shinn, Lehmann, & Wong, 1984). However this concept has been discussed in the literature for at least the last sixty years. Durkheim (1951) said that social integration protects the individual from life's uncertainties and from psychological distress. Loss of social integration, in his view, was not conducive to psychological well-being. Other much earlier theorists have discussed the negative effects that disruption of social integration can have on the individual (McKenzie, 1926; Park & Burgess, 1926). These social researchers had much to do with the current beliefs held about the concept of social support.

Contemporary research shows that social support is important to the physical and emotional health of the individual (Andrews, Tennant, Hewson, & Vaillant, 1978; Berkman & Syme, 1979; Miller & Ingham, 1976; Turner, 1981). These results indicate that interpersonal relations are central to the quality of a person's life. So, it seems reasonable that strengthening the social supports in one's life could act as "preventative medicine" against various

forms of ill health (Kaplan, Cassel, & Gore, 1977). This hypothesis was supported by Miller and Ingham (1976). Their findings showed that people who had a large number of contacts with others showed fewer psychological symptoms, and those who were in relative social isolation showed various depressive symptoms.

While results were showing the global beneficial effects of social support for the individual, not much more than that was learned (Cohen & Hoberman, 1983; Shinn et al., 1984). It seemed there had to be more to social support than the mere presence of social ties. For example, Berkman and Syme (1979) found that ties of marriage and ties with close friends and relatives were stronger predictors of decreased mortality rates than church and other community ties. They hypothesized that intimate ties were more protective than the more casual social contacts. However, simply because an individual has many close social contacts does not guarantee that that individual is supported by them. In fact, it has been noted that some relationships, including the most intimate, may produce conflict in his/her life (Cohen & Hoberman, 1983; Wellman, 1981). Studies suggested that it may be the quality of social support, not the quantity, which makes it effective (Andrews et al., 1978). It became clear to contemporary researchers that a difference needed to be drawn between social interaction and social support (Shinn et al., 1984). Researchers also began

considering the nature of relationships as a way to understand the workings of social support in the lives of individuals.

STRUCTURAL CHARACTERISTICS OF SOCIAL SUPPORT

One way of viewing social support is from the perspective of the social network in which one is involved. If an individual does not fit in well with the surrounding network, then he/she will not receive enough support to meet his/her needs and eventually will experience psychological and physical distress (French, Rodgers, & Cobb, 1974; Shumaker & Brownell, 1984). Studies seem to indicate that people who participate in social organizations, or simply belong to an identifiable group, accumulate greater social support resources (Cassel, 1974), and can more effectively face stressful situations (Shinn et al., 1984). In addition, taking part in the decision-making process within the group can increase the individual's esteem support and may also increase other types of support (Cobb, 1976). Friendship, companionship, and close emotional support can also be attained within a specific group (Festinger, Schachter, & Back, 1950). By examining the social organizations in which people are involved, researchers can better understand which structural characteristics influence the emergence of certain types of networks, and the availability of socially supportive behaviors within those networks (Shumaker & Brownell, 1984).

In a housing study done by Festinger et al. (1950), group homogeneity and cohesiveness were found to be important characteristics influencing the development of social networks. They found that groups tend to form based on common job, sex, socioeconomic level, education, or any other demographic uniformity. The study indicated that cohesiveness is affected by the number of already existing friends in that group and by the attractiveness of the group to the individual (i.e., the extent to which group membership is the goal in and of itself). It was also noted that cohesiveness in the group increased as the number of these demographic linkages increased. This indicates that the degree of homogeneity influences the amount of cohesiveness found in a group.

Other researchers have also pointed out the importance of considering network structure with regards to social support (Kaplan et al., 1977), especially the size and density of the network. It has been found that the size and density of an individual's network can affect his/her perceived availability of support. Latane and Nida (1981) found that people with large and high density networks assume that they will receive support when it is needed. It seems that being surrounded by more people leads them to believe that they will have a greater chance of getting help, although it was found that network size tended to work against the individual. However, Latane and Nida also noted

that this "diffusion of responsibility" probably diminishes as people get to know each other better.

However, these researchers and others have indicated that increases in homogeneity and cohesiveness are not always conducive to positive social support (Festinger et al., 1950; Hays & Oxley, 1986). If individuals have strong motivations to belong to a certain group, that group gains a significant amount of influence upon its members. The group-oriented goals of prestige, social status, and approval of others can also give the organization a great deal of influence over its members. These influences can act as subtle and indirect pressures upon the individual to conform to the group's standards. These pressures can often times be very powerful; the more cohesive the group, the greater its authority over the individual (Festinger et al., 1950). Studies have also shown that close-knit (dense) homogenous networks can be very helpful when the individual experiences a sudden emergency, but not for dealing with new and strange situations (Hays & Oxley, 1986). It has been found that less dense networks may be better for an individual's psychological health as he/she undergoes a life transition where new adaptive behaviors may be necessary. These networks are viewed as being more flexible and able to handle the change.

To illustrate this point, a study was done comparing incoming college freshmen who would be commuting from their

parents home, and incoming college freshmen who would be living in residence halls (Hays & Oxley, 1986). Using measures of network size and composition, types of support received, adaptation to college, and psychological well-being, it was found that the students who were in the residence halls had a more flexible network, and made better adaptations to college than the commuting freshmen who had a more dense network of ties outside the university setting. Overall, it was found that an individual's living situation does have an effect on the social support that is received.

Network density and network composition have been discussed elsewhere in the literature with respect to their relationships to psychological well-being through social support (Hirsch, 1981). Density has been defined as "the proportion of actual to potential relationships that exist among the members of an individual's network" (Hirsch, 1981, p. 157). In a study examining the social support networks of young widows and returning women students, it was found that the formation of low density networks outside of their families was better suited to the provision of support for their new social roles, and suggested that density is negatively related to psychological well-being (cited in Hirsch, 1981). However, it was found that the level of density between subnetworks (i.e., the number of associations among family and friends) was the strongest determiner of mental health showing an inverse relationship.

The level of density within a subnetwork did not seem to be as strongly associated to psychological outcome. From these results, it can be suggested that whenever one subnetwork begins to dominate an individual's life by drawing in associations from other subnetworks psychological distress may follow. For this reason it seems imperative when doing social support network research to have the participants identify each member of their networks, and distinguish their relationships in various ways.

Hirsch (1981) also proposes a means of conceptualizing the total social network in an individual's life. He suggests that the network be viewed as a personal community which "embeds and supports critical social identities" (p. 160). The personal community becomes a reflection of the values and choices of the individual as well as his/her involvement in various spheres of life. These communities can have significant effects on the psychological well-being of the individual. He emphasizes the importance of choice in the creation of the social network/personal community while warning that overinvestment in any one sphere to the neglect of another can be detrimental to the individual's overall mental health.

Another way in which to conceptualize the role of social networks in the social support process was hypothesized by Kaplan et al. (1977). They viewed social networks as having two distinct properties, "morphologic"

and "interactional", which could both be investigated empirically. The "morphologic" properties are concerned with the individual's ability to access support. This includes such things as the complexity of the network, the extent to which the individual can get to and contact the important people in his/her life, the density of the network (i.e., the number of network members who know others in this same network), and the number of direct contacts the individual has within the network. The "interactional" properties are very different in perspective than the "morphologic" properties. One of the most important aspects of this dimension has to do with the meanings given to the relationships by the individual. The meanings of these could be determined by shared norms, interpersonal exchanges, social rituals, or common values and beliefs. Other aspects include the directedness of the relationships (i.e., the amount of reciprocity or ability to mobilize support), the intensity of the relationships (i.e., the extent to which individuals are ready to honor their obligations, and exercise the strength of their commitment), and the frequency (i.e., the number of times interactions occur). It is interesting to note that here, too, a multidimensional approach is used. This seems to indicate that no matter from what perspective one views social support, it is necessary to take into account its multidimensional quality.

MULTIDIMENSIONALITY OF SOCIAL SUPPORT

The concept which has received the widest agreement among researchers concerns the multidimensional quality of social support (Barrera & Ainlay, 1983; Cobb, 1976; Cohen & Hoberman, 1983; Kaplan, Cassel, & Gore, 1977; Thoits, 1982). By examining the types of behaviors individuals receive from their social support network, researchers have been able to define specific categories of support. However, these categories do differ somewhat depending upon the researcher. Cobb (1976), for example, defined social support as "information" which leads the individual to believe that he/she is cared for and loved, esteemed, and belongs to a network of mutual obligation. Kaplan et al. (1977) defined social support as the extent to which an individual's basic social needs of approval and esteem are actually met by the environment. Similar dimensions have been noted elsewhere with the additions of tangible aid, and belongingness (Cohen & Hoberman, 1983). Shumaker and Brownell (1984) discussed a slightly more complex conceptualization of social support. They believed that it is important to distinguish between the functions of social support, and the resources of social support. The functions of support, as described by Shumaker and Brownell, are to meet the person's needs for contact and companionship, to enhance the individual's self-identity, and to enhance the individual's self-esteem. These functions could be achieved through resources such as

emotional sustenance, material or tangible assistance, and information given to the person by others in his/her network. It is important to note that while this is a different means of operationalizing social support, it still retains the multidimensional quality found so often in the literature.

Probably the most elaborate concept of social support to be put forth was by Barrera and Ainlay (1983) where six categories of supportive behaviors were defined. These six included material aid (e.g., providing money or other physical aid), behavioral assistance (e.g., sharing tasks involving physical behavior), intimate interaction (e.g., listening, expressions of esteem, caring, and understanding), guidance (e.g., offering advice, information, or instruction), feedback (e.g., giving individuals feedback about their behavior, thoughts, or feelings), and positive social interaction (e.g., social interaction simply for fun and relaxation). This conceptualization has many features which are very similar to those mentioned previously, the bulk of the categories define behaviors meant to help a person with some kind of difficulty. However, this one is unique in that it includes a behavior not meant as any kind of intervention. Positive social interaction includes things like going to the movies with friends, or out to dinner, or to sporting events with them. This category introduces the idea that social support

does not have to be given solely within the context of potentially negative events in one's life (Hays & Oxley, 1986). This seems to be a more realistic way of viewing social support.

METHODOLOGICAL ISSUES

All of the attempts mentioned above to more precisely conceptualize and operationalize the notion of social support were done in order to develop better empirical tests of the concept. With an explicit theoretical framework, it is much easier to determine what aspects of social support to measure and how to measure them. From the variety of frameworks developed, it seems that there are three major ways to assess social support; quantification of support sources, measurement of the content and subjective view of support, and investigation of the network structure (Barrera, 1981; Depner et al., 1984).

The quantification of sources of support can be done by designating the presence or absence of interpersonal relationships (Depner et al., 1984). Examples of this means of assessment include taking a count of the number of significant relationships in a person's life (Berkman & Syme, 1979), indicating the presence of a confidant vs. a casual friend (Miller & Ingham, 1976), and determining the number of involvements in community activities (Lin, Ensel, Simeone, & Kuo, 1979). Also, an elaborate network analysis, developed by Mitchell in 1974, can be done to quantify all

the social ties that an individual has within his/her network (cited in Barrera, 1981). However, as has been noted previously, the mere presence of a close relationship does not guarantee that one will benefit from the positive effects of social support (Cohen & Hoberman, 1983; Shinn et al., 1984). Interpretation of results based on quantification alone will not further the understanding of social support as a concept. It is necessary to investigate the content and structural aspects of support in order to achieve this level of comprehension.

Cobb (1976) says that social support cannot be measured in any material way because true social support is information which the individual gathers from his/her network. This statement seems to emphasize the importance of the supportive content and of the individual's appraisal of his/her social support. A great many researchers have followed this reasoning, and used self-report questionnaires in their studies (Barrera, 1981; Barrera & Ainlay, 1983; Cohen & Hoberman, 1983; Cohen, Sherrod, & Clark, 1986; Hays & Oxley, 1986; Turner, 1981). However, even though the measures used in these studies are all self-report, some of them are more objective than others, in that they measure frequency of reported receipt of social support. The most useful measures, whether objective or subjective, are the ones which operationalize the multidimensional quality of social support and examine its content.

The importance of the subjective view of an individual's social support, the perceived availability of it in particular, has been brought to light over the last ten years in the literature (Cohen & Hoberman, 1983; Cohen et al., 1986; Vaux & Harrison, 1984). Vaux and Harrison (1984) discuss the necessity of viewing social support as a metaconstruct which includes the support network resources, the supportive interactions, and the support perceptions held by the individual. All of these must be seen as theoretically and empirically important. However, they believe that the priority in social support research at present needs to be a clearer understanding of the network characteristics which promote various perceptions of the individual's support.

In a study by Andrews et al. (1978) correlating level of psychological impairment with level of social support, it was found that people who reported low availability of support also scored high on the measure of impairment. They hypothesized that "objective" reports of social support may be confounded with the level of psychological impairment, and that someone who is "neurotic" may mistakenly underestimate the support available to him/her, and may have an unnecessarily grim view of their social environment (Andrews et al., 1978). However, this may also be an indicator that researchers need to take into account the individual's perception of his/her own environment. If a

person does not feel supported, he/she will most likely suffer psychological distress. Additionally, Hirsch (1979) found that college students in the midst of exam time were less satisfied with their receipt of support, especially when network density was high, even though it seemed that the network members were engaging in more supportive behaviors during that time. This again highlights the necessity of viewing social support as more than simply the receipt of supportive behaviors, and emphasizes the need to measure social support in a variety of ways in order to better understand its functioning in an individual's life.

Cohen and Hoberman (1983), in an attempt to empirically measure an individual's perceptions with regard to the support available to him/her, developed their own social support questionnaire. Like many other social support measures, this one operationalizes the multidimensional quality of support, using the categories of tangible support, self-esteem support, appraisal support, and belongingness support. Tangible support was defined as the perceived availability of material aid. Self-esteem support was defined as perceived availability of a positive comparison when comparing one's self to others. Appraisal support was considered the perceived availability of someone to talk to about one's problems. Lastly, belongingness support was defined as the perceived availability of having people with whom one could do things. Their assumption was

that the perceived availability of social support affects the way an individual interprets stressful events. This questionnaire has proven to be a useful tool in measuring the perceived availability of social support (Cohen & Hoberman, 1983; Cohen et al., 1986). One caveat that has been identified in the literature concerning the use of these perceived support questionnaires is that they are more apt to be skewed toward the high end of social support levels (Depner et al., 1984). For this reason, it is wise to use them in concert with other more established measures of social support.

MAJOR HYPOTHESES IN THE LITERATURE

As a result of assessing the supportive content, the individual's subjective view of his/her social support, and the individual's social network structure, two major hypotheses seem to be the most common in the literature. One of these is the buffering hypothesis. The concept is that high levels of social support protect the individual from physical and/or psychological distress brought on by stressful life events, but that social support itself does not affect the well-being of those people who are experiencing low levels of stress (Cohen & Hoberman, 1983). Social support is seen as a "buffering factor" which, after a stressful life event has occurred, affects the meaning that the individual attaches to the event, and the emotional response to that event (Lin et al., 1979). The protective

function of social support against various forms of illness in the face of life stress is emphasized in this hypothesis (Cobb, 1976; Kaplan et al., 1977).

Evidence for the buffering hypothesis has been found in various studies (e.g., Cohen & Hoberman, 1983; Cohen et al., 1986). In a study comparing the Interpersonal Support Evaluation List (ISEL), a perceived availability of support questionnaire and the Inventory of Socially Supportive Behaviors (ISSB), a self-report questionnaire of receipt of supportive behaviors, it was found that the ISEL supported the buffering hypothesis with regard to depressive symptomatology. The subscales of appraisal support and self-esteem support gave the strongest evidence for this hypothesis (Cohen & Hoberman, 1983). The ISSB was not found to support the buffering hypothesis in any way. This was not a surprise, however, because it has been noted that studies using a perceived availability of support measure tend to show evidence for the buffering hypothesis (Cohen & Hoberman, 1983; Cohen et al., 1986; Henderson, Byrne, Duncan-Jones, Scott, & Adcock, 1980; Wilcox, 1981).

A major limitation to the studies mentioned above is their cross-sectional designs. Studies which measure social support at a single point in time provide inadequate tests of the buffering hypothesis. The level of an individual's support is likely to be a product of, at least in part, past or current life changes so those studies which measure

support level after the life changes have occurred may be biasing their results toward the buffering hypothesis (Thoits, 1982). There is agreement in the literature that in order to effectively test the buffering hypothesis and determine causality to any degree, a longitudinal design is essential (Cohen & Hoberman, 1983; Cohen et al., 1986; Thoits, 1982).

The other hypothesis which has received support in the literature concerns the main effects of social support (Andrews et al., 1978; Lin et al., 1979; Turner, 1981). The theory behind it states that social support increases or maintains self-esteem and social identity, so it should have a main effect on the psychological state of the individual since self-evaluation and social identity are important parts of psychological well-being (Thoits, 1982).

Various studies have found support for the main effects hypothesis (Andrews et al., 1978; Miller & Ingham, 1976; Turner, 1981). In a study measuring the number of life events in the past year, the level of social support, and the level of psychological impairment, it was found that social support did not interact with stressful life events, but was reported as an independent factor negatively affecting the level of psychological impairment (Andrews et al., 1978). Another study found that a measure of psychological symptoms varied with social support variables even in the absence of serious life events (Miller & Ingham,

1976). Results of other research show similar direct negative effects of social support on levels of distress (Berkman & Syme, 1979; Lin et al., 1979; Turner, 1981; Thoits, 1982).

The limitations for the research findings of this hypothesis are similar to those for the buffering hypothesis. A majority of the studies are cross-sectional which interferes with the generalizability of the findings, and a clear interpretation of the results. There is also the danger of a confounding of the social support effects with the measure of reported psychological distress. The levels of distress may affect the type and amount of support reported by the individual. The use of a longitudinal design, as opposed to a cross-sectional one, would take care of some of these concerns.

MAJOR HYPOTHESES IN THE PRESENT STUDY

The present study compared levels of social support, levels of life event stress, and levels of psychological distress and life satisfaction across a ten week period for college women living in residence halls versus those living in sorority housing. A demographics information sheet was also used to measure the level of homogeneity between the two groups. All questionnaires were filled out twice by all participants during the ten week period. Two social support instruments were used; one measuring perceived availability of social support (ISEL: Cohen & Hoberman, 1983) and one

designed for this study to measure social support in a more objective manner. These two instruments were expected to empiricize the "metaconstruct" nature of social support as discussed by Vaux and Harrison (1984). The longitudinal nature of this study, and the use of two different measurement approaches to social support was expected to alleviate many of the limitations found in past research.

The place of residence for the students, in the residence hall or in the sorority house, was viewed as their social support system. The social support system has been defined by Thoits (1982) as a subset of people within the individual's total social network upon whom he/she relies for the various types of social support. This concept is similar to that of the social support subnetwork (Hirsch, 1981). The groups were compared, among other ways, on the basis of the relative importance of co-residents from the system to the total social support network.

Literature concerning the impact of college residence on the formation of friendships during the college years supports using residence as a social support system (American Council on Education Studies, 1950; Davis, 1977; Yamamoto, 1968). For example, the residence hall offers a wide variety of people for the individual to choose from as friends. The crucial function of the residence hall has been noted as the provision of "a loosely structured, high density environment ideally suited for sorting and sifting

friends" (Davis, 1977, p. 212). Most students seem to feel that the most desirable aspect of the residence hall is the ability to live with close friends. However a distinction is made between larger and smaller sized halls. It has been found that smaller halls of 80 to 150 students provide a more intense experience than the halls of several hundred students. It is thought that life in a larger residence hall can be very lonely where one gets to know a lot of people but few very well (American Council on Education Studies, 1950). Some women who may feel that the residence hall does not offer them the kind of support they need may remedy this by deciding to join a sorority and live in the sorority house. Sorority houses unlike residence halls are typically large enough for only 50 to 100 women to live in at one time. By using the American Council on Education Studies' standards, this size would provide the kind of experience that students look for in a residence. For either situation however, it does seem that physical proximity is an important factor in the formation of the social support system (Davis, 1977; Yamamoto, 1968).

While physical proximity is important to the social support system, there are other factors which need to be considered. Issues discussed by Festinger et al. (1950) including group cohesiveness and group homogeneity are relevant here as they relate to social support and the use of college residence as the social support system. However

basic differences between the two forms of residence need to be made clear. Probably the most fundamental difference is that individuals actively choose and are actively chosen to be a part of the sorority house. While residence hall students often are given a choice of halls, they are not actively chosen to live there on the basis of personal characteristics in the same way as sorority residents. There is a reciprocity of choice found in sorority residency that is not found in residence hall residency. This reciprocity most likely positively affects the attractiveness of the residence to the individual. From Festinger et al.'s (1950) finding that cohesiveness is influenced by the attractiveness of the group to the individual it could be argued that the sorority residents would be a more cohesive group than the residence hall students. Kaplan et al. (1977) also point out that the directedness of the relationship (the amount of reciprocity) influences the meaning of the relationship to the individual. It is likely that an individual would feel more attracted and more committed to a group when she feels that a reciprocal choice was made. Because a sorority tends to choose members who are consistent with the group on various demographic variables while the residence hall does not (American Council on Education Studies, 1950), the sorority residents can also be expected to be more homogeneous than the residence hall students. And as has been discussed

earlier these factors can influence the content of support received by the individual and the individual's perception of that support (Kaplan et al., 1977; Latane & Nida, 1981).

Another factor which can influence the individual's perception of their support is related to the "interactional" properties of the network as explained by Kaplan et al. (1977). As was mentioned previously, these properties relate to the meanings that individuals give their network relationships as determined by shared norms, interpersonal exchanges, social rituals, or common values and beliefs. A common aspect among sororities is the use of ritualistic ceremonies, secret mottoes, and greetings which emphasize some shared belief or goal that all members of any sorority are expected to strive for or believe in. These social rituals and common values all work to create and maintain a bond among the people in the group. Thus, the women living in the sorority house also have the secret bond or goal which adds to the cohesion of the group by increasing their desire to be a part of the group and their commitment to it. Residence hall members are not bound together by common social rituals or goals in this way, and so are not likely to be as cohesive as the sorority house members, nor as committed to their living group.

Due to the increase in cohesiveness of the sorority house group over that of the residence hall group, it was expected that the women in the sorority housing would feel

more supported than the women in the residence hall. The sorority house women would also experience less distress than the residence hall women because of the perception of greater support. However, it was thought likely that in reality they would receive the same amount of supportive behaviors, but this would not have any great effect on the distress levels.

The following hypotheses were made at the beginning of this project:

The sorority house residents most likely feel very bonded with the other members of the house to a much greater extent than the residence hall members feel with their co-residents.

1. (a) The sorority house group (SHG) will list a greater proportion of co-residents as part of their total social support network than the residence hall group (RHG). (b) For this reason, SHG networks will also show a greater number of associations among their network members than the RHG networks indicating higher density.

Groups which actively choose members will be sure that they are consistent with the characteristics already established within the group.

2. The sorority housing group (SHG) will be more

homogenous than the residence hall group (RHG) based on (a) family income, (b) race, (c) religious background, (d) grade point average, and (e) desirability of residence.

The women in the sorority group for the most part will have met their network members (assuming that more of their network consists of co-residents) in the past year or two, while the residence hall members will be more likely to have known the people in their network since the beginning of school at least two years ago or even prior to coming to school (assuming that less of their network consists of co-residents).

3. On average, the RHG will have known members of their network for a longer period of time than the SHG would have known of theirs.

It has been noted that increases in homogeneity and cohesiveness are not always conducive to positive social support (Festinger et al., 1950; Hays & Oxley, 1986).

4. The SHG will indicate that a greater proportion of the people in their networks have caused trouble for them lately than the RHG will indicate of their networks.

Because the sorority members are likely to be more committed to the group and feel a common bond with the other

members unlike the residence hall members, they will in turn feel that they have more support available to them. This perception of increased support will be seen best among the cognitive aspects of support. The practical aspects are more concrete, and will be less likely to be affected by the individual's perception.

5. (a) The SHG will show a higher level of perceived availability of support than the RHG, and (b) this will be stable over time. In addition, the SHG will consistently show higher scores at the first time period (T1) and at the second time period (T2) on the subscales of (c) appraisal, (d) self-esteem, and (e) belonging. However, the two groups will be similar at both time periods on the basis of the (f) tangible scale score.

This study will be conducted at two time periods during the spring quarter. The first will be during the second and third weeks of the term soon after the students have had a break from school, and before mid-term exams are a concern. The second assessment will be done during the ninth and tenth weeks of the quarter. This is not only right before final exams, but also right before the end of the academic year. This is a time when anxiety could develop because of the realization that the year is ending, and the student may feel she has deficiencies in a number of academic areas that

can not be turned around before the ending of school. There may also be issues surrounding leaving school friends for the summer and having to face conflicts at home with the family. The amount of support an individual feels at this time could greatly affect the amount of anxiety that might go with it.

6. Both groups will show an (a) increase in distress levels and (b) a decrease in life satisfaction from T1 to T2. However, over time the SHG will show (c) lower levels of distress and (d) higher levels of life satisfaction than the RHG.

An inference is made from Hirsch's (1979) finding in that an individual's subjective experience of support and the actual receipt of supportive behaviors are not necessarily predictive of each other. Therefore, simply because one group of people may feel more supported than another, this does not mean that they will report receiving more support.

7. (a) Both groups will show approximately equal levels of received supportive behaviors, and (b) this will be stable over time.

Although there might be times during the quarter which may be typically more stressful than others for most students, an individual may experience negative life events

in her own life that may affect her need for support. These events might then add to any distress the individual already may feel as a result of being in school.

8. The number of events rated as negative by the individual will positively predict the level of psychological distress and negatively predict the level of life satisfaction at either time.

The buffering hypothesis is defined as the moderation of the effects of negative life event stress through high levels of social support (Cohen & Hoberman, 1983). However, Lin et al. (1979) pointed out that support buffers the effects of stress in as much as it affects the meaning that the individual attaches to the event, and her emotional response to it. This emphasizes the necessity of taking into account the individual's subjective experience of her support as well as the subjective experience of the life event. It seems that it is this aspect of social support which is relevant to the buffering hypothesis. Life events are not viewed as inherently stressful to the individual. Thus people may respond in different ways to the occurrence of events in their lives. By the same token, simply because someone receives supportive behaviors from others does not mean that they feel supported. In this way, frequency of life events and amount of received support do not seem to be relevant issues in the buffering hypothesis.

9. (a) Any support found for the buffering hypothesis will be limited to data gathered from the perceived availability of social support measure, and the data on the intensity of the life events for the individual.
- (b) The mere frequency of life events and amount of received supportive behaviors will not show support for the buffering hypothesis.

At the beginning of the term anxiety levels for most students should be lower than at the end of the term. When there is less anxiety one may predict that there will be less of a need for the receipt of supportive behaviors.

10. (a) At T1, levels of received social support will be negatively related to the level of psychological distress, and (b) will be positively related to the level of life satisfaction.

At the end of the term anxiety is most likely at its peak for most students, it will be at this time that they will be in need of supportive behaviors from those around them. Hirsch (1979) found that network members do indeed engage in more supportive behaviors during stressful times of the term.

11. (a) At T2, when the distress level has increased, levels of received social support will be positively related to the level of psychological distress, and (b)

will be negatively related to the level of life satisfaction.

Levels of distress are most likely not affected right away by the receipt of supportive behaviors. It may take some time before anxiety pertaining to a negative event subsided.

12. The number of events rated as negative at T1 will be
- (a) positively related to levels of received support and distress and (b) will be negatively related to life satisfaction levels. At T2 however, the number of events rated as negative at T1 will be (c) negatively related to received support levels and distress levels, and will be (d) positively related to life satisfaction levels.

Table 1 is a graphic representation of the twelve hypotheses stated previously. For hypotheses #1 to #7, a plus sign (+) in both columns indicates that the level of that variable did not change over time, but was consistently higher than that of the other group. A minus sign (-) in both columns similarly indicates no change over time, but lower variable levels than that of the other group. Equal signs (=) are used where it is hypothesized that groups will remain consistent over time, and will be at similar levels with each other on that variable. Where each

group is hypothesized to increase or decrease over time on a certain variable, as in hypothesis #6, the pluses and minuses are used accordingly, and parenthetical notes are used to indicate which group will be consistently higher or lower on that variable than the other. Hypothesis #9 compares perceived vs. received support rather than the two subject groups, but the symbols may be read in the same manner as described above.

For the correlational hypotheses (#8 and #10 to #12), the pluses and minuses simply indicate the kind of relationship expected between the noted variables at each time. If no hypothesis was made about the relationship between two variables at a specific time period, the initials NA are used meaning not applicable.

Table 1

Summary of Hypotheses

<u>Hypothesis</u>	<u>Predictions</u>	
	<u>T1</u>	<u>T2</u>
#1a Coresidents		
SHG	+	+
RHG	-	-
#1b Density		
SHG	+	+
RHG	-	-
#2 Homogeneity		
SHG	+	+
RHG	-	-
#3 Time Known		
SHG	-	-
RHG	+	+
#4 Conflict		
SHG	+	+
RHG	-	-
#5 Perceived Support		
SHG	+	+
RHG	-	-
#6 Distress		
SHG	- (< RHG)	+
RHG	-	+
Satisfaction		
SHG	+	-
RHG	+	- (< SHG)
#7 Received Support (RS)		
SHG	=	=
RHG	=	=
#8 Negative Events		
Corr. w/distress	+	+
Corr. w/satisfaction	-	-
#9 Buffering Hypothesis		
Perceived Support	+	+
Received Support	-	-
#10 T1 RS		
Corr. w/distress	-	NA
Corr. w/satisfaction	+	NA
#11 T2 RS		
Corr. w/distress	NA	+
Corr. w/satisfaction	NA	-
#12 T1 Negative Events		
Corr. w/RS	+	-
Corr. w/distress	+	-
Corr. w/satisfaction	-	+

METHOD

Participants

The participants in this study were 68 college women in either their sophomore or junior years in school. Thirty-five of women were recruited from the all-women's residence hall complex. Thirty-three women were volunteers recruited from randomly chosen sorority houses. Because there were no all male residence halls, it was decided to exclude men from this study as there would be no means of pure comparison for a fraternity housing group. Recruitment of participants was done with the help of the Resident Director of the residence hall complex and the Panhellenic Council. It was expected that there would be a greater number of sophomores living in the residence halls than in the sorority houses, and a greater number of juniors living in the sorority houses than in the residence halls. For this reason, both class ranks were used to obtain a large enough sample size.

Instruments

SOCIAL SUPPORT MEASURES

The Interpersonal Support Evaluation List (ISEL) was used to assess perceived availability of support (see Appendix A). The ISEL consists of four 12-item subscales (tangible, appraisal, self-esteem, and belonging). For each item, the participant had to answer true or false on the basis of her perceptions. Cohen and Hoberman (1983) developed this measure, and found the internal reliability

(Cronbach's alpha) for the total scale to be .77. A later study using the ISEL found it to have an internal reliability of .90 (Cohen et al., 1986). In this study, Cronbach's alpha for total scale was found to be .83 at the first assessment, and .91 at the second assessment. Internal reliabilities for the subscales at T1 and T2 were as follows: .56 and .84 for perceived tangible support, .78 and .77 for perceived belonging support, .49 and .85 for perceived appraisal support, .56 and .69 for perceived self-esteem support. A more complete explanation of the strengths of this measure can be found elsewhere (Cohen & Hoberman, 1983).

To indentify all members of the individual's social network and determine the proportion of those who are co-residents, to measure the frequency of support participants report receiving, and to determine the density of the network, a variation of the Social Support Questionnaire was been devised for this study (Norbeck, Lindsey, & Carrieri, 1981; see Appendix B). For this questionnaire the participants were asked to nominate up to twenty people whom they considered important to them and who provided them with support. They were asked to rate the people in their network based on the same four theoretical constructs of social support as in the ISEL (i.e., tangible support, belonging support, self-esteem support, and appraisal support). Additionally the participants were asked to

identify these people in various ways (i.e., where does the person live, how long have they known each other, how often is there trouble in the relationship, etc.). Internal reliability was difficult to assess for this instrument because it varies so much from individual to individual. Subjects could list up to twenty people in their networks, however many did not. For these, missing values had to be used as place holders during the computer analysis. This procedure interfered with the accurate calculation of Cronbach's alpha.

MEASURE OF STRESSFUL LIFE EVENTS

A modified version of the College Student Life Events Scale was used to measure the number of life events reported by the participants (Levine & Perkins, 1980; see Appendix C). This scale has been used in other studies and includes life events related specifically to the lives of college students (Cohen & Hoberman, 1983). The participants were be asked to indicate whether these events occurred or not in the past ten weeks. The participants were also be asked to rate each event as positive or negative based on a Likert scale ranging from very negative to very positive. The internal reliability for this scale at the first assessment was .77, and at the second assessment, .72.

OUTCOME MEASURES

A psychological distress scale and life satisfaction scale were used to measure outcome for all participants.

The Composite Symptom Checklist (CSC: see Appendix D) was used as the psychological distress scale (Bloom & Caldwell, 1981). This scale is composed of twenty items which the participants rank based on frequency of occurrence in the past two weeks. Further analysis of this scale can be found in Bloom and Caldwell (1981). In this study the Cronbach's alpha of internal reliability was found to be .78 at the first time period, and .76 at the second time period.

A life satisfaction scale was also used as an outcome measure (Reischl, 1985; see Appendix E). The participants were asked to rate each item based on a frequency scale ranging from never or rarely to always or almost always. The internal reliability was found to be .85 at the first assessment, and .84 at the second assessment.

DEMOGRAPHICS

Each participant was asked to fill out a demographics information sheet (see Appendix F). The demographics sheet included place of residence, age, class rank, college major, family income level, race, religious background, marital status, cumulative grade point average as of the previous quarter (at the first administration) and the number of times involved in rush. In addition to these items, there were two other questions asked of the RHG concerning their perceptions of the sorority system for use by the Panhellenic Council in return for the participation of the members of the various Michigan State University sororities.

Procedure

During the second and third weeks of the quarter, participants completed all five questionnaires and the demographics sheet at their place of residence. They were instructed to base their answers for the social support measures on their experiences in the residence hall or the sorority house whichever one was applicable to them. Upon completion, they were reminded of the second round of questionnaires to be completed near the end of the quarter.

During the ninth and tenth weeks of the quarter, participants once again completed all five questionnaires and the demographics sheet. They were given the same instructions as mentioned above.

All participants were assigned code numbers for the purposes of this study to ensure confidentiality. The questionnaire packets were put together one at a time with the instruments arranged in a random order each time. However the demographics sheet was always given last so as not to influence the answers given on any of the questionnaires.

The incentives for participation varied between the groups. The sorority group received information about the residence hall group from two extra questions that were placed on the demographics sheet. These questions concerned the residence hall member's perception of sororities, and if they chose not to participate in rush, what the reason was

for not doing so. The residence hall group because it was not an identifiable organization in the same way as the sorority group required more individualized incentives. It was planned that each residence hall member who participated in this study would receive coupons for a local eating establishment at each assessment.

RESULTS

Hypothesis #1a states that the SHG would list a greater proportion of coresidents on the Social Support Questionnaire than the RHG. It was supported by repeated measures ANOVA of the data. This analysis showed that the SHG did report significantly greater proportion of their coresidents as being part of their social networks than did the RHG, $F(1, 66) = 7.31$. $p < .01$. This finding was consistent over time, and there were no group by time interaction effects.

Network density was measured by counting the number of associations among the network members as reported by the subject. Hypothesis #1b states that those with higher proportions of coresidents in their networks would in turn report a greater number of associations among their support people indicating greater network density. However, even though there was support indicating that the SHG had a greater proportion of coresidents in their support network as stated above, repeated measures ANOVA showed no differences between the two groups with respect to the

amount of density in the networks, $F(1, 63) = 1.54, p < .22$. But although there were no significant differences between the groups, there was a trend at both times in the predicted direction. Repeated measures ANOVA also showed that both groups reported significant increases in the density of their networks from T1 to T2, $F(1, 63) = 7.36, p < .01$. There were no group by time interaction effects.

Hypothesis #2 states that the SHG would be more homogeneous based on various variables than the RHG. This was partially supported by the data. Chi-square analysis was not performed with respect to the races of the subjects. Because of a zero cell size, chi-square results would have been questionable. However, one needs only to examine the raw data to see that the SHG is clearly more homogeneous than the RHG with respect to race (see Table 2).

Greater homogeneity of the SHG over the RHG was also found regarding the desirability of residence. Chi-square analysis indicated that the SHG is significantly more satisfied with its living arrangements than the RHG (see Table 3). This was true at both time periods, T1: $X^2(1, n = 67) = 5.66, p < .02$ and T2: $X^2(1, n = 67) = 4.92, p < .03$.

Homogeneity of one group over the other was not supported when considering family income or religious background. Chi-square analysis of the groups based on reported family income showed that the groups are significantly different from one another. This was true at

Table 2

Chi-square Frequencies For Race

	<u>T2</u>	
	<u>SHG</u>	<u>RHG</u>
Non		
Caucasian	0	5
Caucasian	33	30

Table 3

Chi-square Frequencies For Residence Desirability

	<u>T1</u>		<u>T2</u>	
<u>Desirable?</u>	<u>SHG</u>	<u>RHG</u>	<u>SHG</u>	<u>RHG</u>
Yes	30	25	29	24
No	2	10	3	11

both time periods, T1: $X^2(2, n = 45) = 7.37, p < .03$ and T2: $X^2(2, n = 43) = 8.70, p < .01$. However within groups, they are equally diverse but in the opposite directions. The SHG has a greater number of people in the wealthier categories, and the RHG has a greater number of people in the poorer categories (see Table 4). Unfortunately although the chi-square indicates a significant difference between groups, its statistical integrity is called into question due to a cell size of slightly less than five for one of the six cells at each time period. With respect to religious background of the group members, the homogeneity hypothesis was again not supported by the data. Neither group was more homogeneous than the other. However the groups did approach significance in regards to their being different from each other. This was true at both time periods, T1: $X^2(2, n = 64) = 5.68, p < .059$ and T2: $X^2(2, n = 64) = 5.77, p < .056$. The unevenness of the distribution showed that there were more Catholics in the RHG than the SHG and more people in the Other category in the SHG than the RHG (see Table 5).

With respect to grade point average and homogeneity of the groups, it was found that the SHG became more homogeneous from T1 to T2 than the RHG. The F-values for the ratios of group variances were examined. At T1 the group variance for the SHG was 60.75 and for the RHG was 75.39, $F = 1.69, p < .16$. While at T2 the SHG variance decreased to 54.26 and the RHG variance increased to

Table 4

Chi-square Frequencies For Estimated Family Income

<u>Income</u>	<u>T1</u>		<u>T2</u>	
	<u>SHG</u>	<u>RHG</u>	<u>SHG</u>	<u>RHG</u>
<10g-39g	2	11	2	11
40g-79g	11	11	8	13
>79g	7	3	7	2

Table 5

Chi-square Frequencies For Religious Background

<u>Religion</u>	<u>T1</u>		<u>T2</u>	
	<u>SHG</u>	<u>RHG</u>	<u>SHG</u>	<u>RHG</u>
Catholic	7	12	10	13
Protestant	12	14	10	14
Other	14	5	13	4

78.78, $F = 2.24$, $p < .03$. This analysis indicates that although the trend at T1 suggests greater homogeneity of the SHG, at T2 this trend actually reaches significance confirming the hypothesis.

Hypothesis #3 states that the RHG subjects will have known the members of their network for a longer period of time than the SHG subjects. It was disconfirmed at T1. A t-test of the data showed that at T1 the SHG people had known the members of their network longer ($M = 4.10$) than the RHG people ($M = 3.82$), $t(61) = 2.25$, $p < .03$. At T2, the t-test indicated no significant difference between groups on this variable, $t(66) = 1.02$, $p < .31$. However, even though there was no significance at T2, the trend is in the same direction as T1. Means for the SHG and the RHG at T2 were 4.04 and 3.91 respectively.

Hypothesis #4 states that the SHG subjects would indicate that a greater proportion of their network members have caused trouble for them lately than the RHG subjects would indicate of their networks. This did not turn out to be the case. Repeated measures ANOVA indicated that at neither time period was there a significant difference between the groups on this variable, $F(1, 66) = .54$, $p < .47$. There were no effects for time or for group by time interaction. There was a trend however indicating that the SHG reported an increase from T1 to T2 in reported conflict while the RHG reported a decrease from T1 to T2 in reported conflict.

Hypothesis #5 states that the SHG would show higher levels of perceived availability of support on all scales of the ISEL except for the tangible scale than the RHG. Repeated measures ANOVA was performed on the Interpersonal Support Evaluation List (ISEL: Cohen & Hoberman, 1983) total score and MANOVA was done on the subscale scores, except for the tangible subscale, due to their high intercorrelation (correlational data reported later). The tangible subscale was left out of the MANOVA because it was not hypothesized to be in the same direction as the rest of the subscales. Because the total score is completely dependent upon the subscales which violates an assumption of the MANOVA procedure, it had to be left out of the MANOVA. Data analysis showed that the SHG reported a significantly higher level of total perceived availability of support than the RHG, $F(1, 66) = 12.01$, $p < .001$, and this relationship was stable over time. This finding is consistent with the original hypothesis. There was no significant interaction found between group and time on this variable. Among the subscales of the ISEL, MANOVA revealed that the SHG showed significantly higher levels of perceived support based on the subscales than the RHG, $F(4, 63) = 7.97$, $p < .001$. This finding was consistent over time, and is consistent with the original hypothesis. No significant interactions for group and time was found. Upon doing univariate analyses of

variance on the above subscales, it was found that only one subscale did not follow the predicted direction, perceived self-esteem support. There were no significant differences between the groups with respect to the amount of perceived self-esteem support, but there was a significant decrease for both groups in amount of perceived self-esteem support over time, $F(1, 66) = 6.57, p < .05$. Both of these findings are contrary to what was hypothesized. There was no significant interaction between group and time. And finally on the perceived tangible support subscale the SHG again showed significantly higher levels than the RHG, $F(1, 66) = 7.95, p < .01$, and this relationship was maintained over time. It was hypothesized that there would be no differences between the groups on this variable at either time period. The data contradict this. There were no significant interactions found. Means for the above analyses can be found in Table 6.

Hypothesis #6 states that both groups would show an increase in distress and a decrease in life satisfaction over time, but the SHG would consistently show lower levels of distress and higher levels of life satisfaction than the RHG. Repeated measures ANOVAs were performed on the groups with respect to the level of distress as measured by the Composite Symptom Checklist (CSC) and the level of life satisfaction as measured by the Life Satisfaction Scale (LSS). There were significantly lower levels of distress

Table 6

Means and Standard Deviations for ISEL

<u>ISEL Scales</u>	<u>T1</u>		<u>T2</u>	
	<u>SHG</u>	<u>RHG</u>	<u>SHG</u>	<u>RHG</u>
Total				
Means	1.86	1.77	1.89	1.76
SDs	.08	.13	.09	.17
Tangible				
Means	1.92	1.86	1.97	1.86
SDs	.10	.15	.08	.20
Belonging				
Means	1.86	1.67	1.88	1.68
SDs	.14	.24	.15	.22
Appraisal				
Means	1.93	1.90	1.94	1.86
SDs	.09	.11	.09	.21
Self-Esteem				
Means	1.72	1.68	1.77	1.70
SDs	.15	.17	.15	.21

for the SHG than for the RHG over time, $F(1, 66) = 4.52$, $p < .05$, and this confirms part of the hypothesis. However, the data analysis indicated that there was no significant difference in level of distress from T1 to T2 for either group, $F(1, 66) = 1.68$, $p < .20$. There was a trend toward lower distress levels at T2 for both groups. For life satisfaction, the hypothesis was confirmed. The SHG showed higher levels of life satisfaction than the RHG over time, $F(1, 66) = 17.03$, $p < .001$, and both groups showed a significant decrease in life satisfaction from T1 to T2, $F(1, 66) = 4.10$, $p < .05$. See Table 7 for means and standard deviations.

Hypothesis #7 states that the groups would show approximately equal levels of received support as measured by the total score on the Social Support Questionnaire was not supported by the data. Repeated measures ANOVA found that the SHG showed a significantly higher level of total received supportive behaviors than the RHG, $F(1, 66) = 7.79$, $p < .01$, and this was stable over time. Repeated measures MANOVA found the same pattern to hold true for subscales. Because the total score is completely dependent upon the subscales which violates an assumption of the MANOVA procedure, it had to be left out. The SHG reported more received more received supportive behaviors based on the subscales than the RHG, $F(1, 61) = 2.53$, $p < .05$. This was maintained over time. Univariate analyses of variance

Table 7

Means and Standard Deviations for CSC and LSS

<u>Scale</u>	<u>T1</u>		<u>T2</u>	
	<u>SHG</u>	<u>RHG</u>	<u>SHG</u>	<u>RHG</u>
CSC				
Means	1.59	1.72	1.56	1.67
SDs	.24	.32	.22	.29
LSS				
Means	4.07	3.59	3.99	3.42
SDs	.49	.65	.41	.70

showed that only one subscale did not follow this same pattern, received self-esteem support.

There were no significant group differences on the received self-esteem support variable although the trend was in the same direction as the other subscales, $F(1, 65) = 3.59$, $p < .07$. There were no significant group by time interactions for any of the received support variables. See Table 8 for means and standard deviations.

Hypothesis #8 states that the number of life events rated as negative by the individual would positively predict the level of psychological distress and negatively predict the level of life satisfaction at either time period. Pearson correlations analysis confirmed the hypothesized relationship between distress and negative life events. It was found that events rated as negative at T1 positively predicted the level of distress at T1 and at T2 ($r = .40$ and $r = .36$, $p < .001$, respectively). There was also a positive correlation between negative events at T2 and distress at T1 as well as at T2 ($r = .36$ and $r = .35$, $p < .002$, respectively). The number of life events rated as negative at T1 did not significantly predict the level of life satisfaction at either time period. This is contrary to the original hypothesis. However, the negative events at T2 did have a significant negative relationship with life satisfaction levels at T2 ($r = -.24$, $p < .03$).

Table 8

Means and Standard Deviations for SSQ

<u>SSQ Scales</u>	<u>T1</u>		<u>T2</u>	
	<u>SHG</u>	<u>RHG</u>	<u>SHG</u>	<u>RHG</u>
Total				
Means	3.27	2.90	3.37	2.95
SDs	.66	.60	.71	.71
Tangible				
Means	3.03	2.57	3.00	2.62
SDs	.92	.85	.90	.89
Belonging				
Means	3.28	2.78	3.33	2.93
SDs	.67	.59	.72	.74
Appraisal				
Means	3.28	3.00	3.52	2.99
SDs	.64	.74	.81	.71
Self-Esteem				
Means	3.48	3.24	3.63	3.25
SDs	.80	.73	.86	.79

Hypothesis #9 states that any support for the buffering hypothesis would be limited to data gathered from the perceived availability of social support measure, and the data on the intensity of the life events for the individual. To test the buffering hypothesis, a series of analyses were done. The T1 total score and subscale scores on the ISEL with the T1 negative life events score, and the cross product were each regressed on the T1 CSC score. The same process was used for: the T1 ISEL variables with the T1 life events frequency variable, and their cross product; the T1 SSQ total score and subscale score variables, the T1 negative life events variable, and their cross product; the T1 SSQ total score and subscale score variables, the T1 life events frequency variable, and their cross product. These same regressions were then done on the T2 CSC variable. In addition, T2 CSC regressions were done using T2 variables listed above. Using the forced entry procedure, the variables were forced into the equation in the following order: events variable, support variable, and finally the interaction term. One way to operationalize the definition of the buffering hypothesis could be as follows: when T1 negative life events are high and T1 perceived support is high then T2 distress should be low. A significant interaction term from the regression analyses of the T1 ISEL variables and negative life event variable upon the T2 distress variable would indicate initial support for the buffering hypothesis. Only one such interaction was found

to be significant. This involved the T1 self-esteem subscale of the ISEL and the T1 negative life events variable (r^2 change = .08, $p < .02$). A means analysis was then performed to determine whether the significant interaction term really was supporting the buffering hypothesis (see Table 9). This analysis showed that perceived self-esteem support at T1 does moderate the effects of T1 stress when support levels are high. Thus when T1 perceived self-esteem support is low, T2 distress is very much affected by T1 stress levels. Deviating somewhat from the original definition of "buffering", there was also a significant interaction between T1 perceived self-esteem support and T1 total frequency of life events regressed on T2 distress. A means analysis of the components of this product term yielded the same results as listed above. Both of these show support for the buffering hypothesis.

However, other significant interactions, which do not fit the standard definition of the buffering hypothesis, were found through the regression analyses. Interactions between the T2 negative life events variable and all the T2 perceived support subscales (except self-esteem support) and the T2 total score on the ISEL were significant when regressed on T2 psychological distress. Interactions were also significant between the T2 total frequency of life events variable and the T2 perceived support subscales (except self-esteem support) and the T2 total score on the

Table 9

Means Analyses of Significant T1 Interactions Regressed Upon
T2 Distress Levels

<u>Stress</u>	<u>Perceived Self-Esteem Support</u>	
	<u>High</u>	<u>Low</u>
Negative Life Events		
High	1.61	1.80
Low	1.55	1.56
Overall Life Events		
High	1.58	1.80
Low	1.59	1.57

ISEL. These interactions when submitted to a means analyses show that when T2 perceived support (total and subscales) is high and stress is low, concurrent distress is at its lowest (see Table 10). Only one significant interaction was found when regressing on T1 distress. This involved the interaction between T1 negative life events and T1 received appraisal support as measured by the SSQ (r^2 change = .06, $p \leq .03$). Here a means analysis did not reveal any support for the buffering effects of received support as T1 distress was highest when stress and received support were both high.

Hypothesis #10 states that at T1 the levels of received social support measured by the SSQ would be negatively related to psychological distress, and would be positively related to life satisfaction. Using Pearson correlations it was found that the T1 total score on the SSQ was significantly negatively related to the T1 distress level ($r = -.21$, $p \leq .05$), and was significantly positively related to T1 life satisfaction levels ($r = .25$, $p \leq .05$). Of the subscales, only T1 appraisal support followed these patterns ($r = -.21$ and $r = .24$, $p \leq .05$, respectively). Level of T1 received self-esteem support and T1 received belonging support showed significant positive relationships with T1 life satisfaction ($r = .23$, $p \leq .05$ and $r = .28$, $p \leq .05$), but no significant relationships with T1 distress. Levels of T1 received tangible support were not related to T1 distress or T1 life satisfaction.

Table 10

Means Analyses for Significant T2 Interactions Regressed
Upon T2 Distress Levels

		<u>Life Events Stress Level</u>			
		<u>Negative Events</u>		<u>Overall Events</u>	
<u>Perceived Support</u>		<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
Total Support					
	High	1.62	1.46	1.62	1.46
	Low	1.69	1.67	1.69	1.67
Tangible					
	High	1.63	1.47	1.63	1.47
	Low	1.70	1.70	1.72	1.68
Belonging					
	High	1.67	1.51	1.65	1.55
	Low	1.65	1.60	1.67	1.58
Appraisal					
	High	1.64	1.50	1.64	1.50
	Low	1.67	1.61	1.67	1.62

Hypothesis #11 states that at T2, when the distress level had increased, levels of received supportive behaviors as measured by the SSQ would be positively related to the level of psychological distress as measured by the CSC, and would be negatively related to life satisfaction as measured by the LSS. However because this hypothesis was predicated on the finding that distress would decrease from T1 to T2, which it did not do, this hypothesis was untestable.

Hypothesis #12 states that T1 negative life events would be positively related to T1 SSQ support levels, T1 distress, and T2 life satisfaction. Negative life events at T1 would also be negatively related to T1 life satisfaction, T2 SSQ support levels, and T2 distress. Pearson correlations revealed that T1 negative life events were significantly **negatively** related to T1 received tangible support ($r = -.25$, $p < .05$), and to T1 received belonging support ($r = -.26$, $p < .05$). The other T1 SSQ subscales and the T1 SSQ total score were not significantly related to T1 negative life events. Analysis confirmed a significantly positive relationship between T1 negative life events and T1 distress ($r = .40$, $p < .001$), but no significant relationship was found between T1 negative events and T1 life satisfaction. Pearson analysis confirmed a significant negative relationship between T1 negative life events and T2 SSQ total support ($r = -.26$, $p < .05$), T2 received tangible support ($r = -.22$, $p < .05$), T2 received belonging support (r

= $-.27$, $p < .05$), T2 received self-esteem support ($r = -.23$, $p < .05$), and T2 distress ($r = .36$, $p < .001$). There was no significant relationship found between T1 negative life events and T2 received appraisal support. The hypothesized positive relationship between T1 negative life events and T2 life satisfaction was also not supported by the data.

Some interesting results, although not hypothesized about, are worth noting here. Pearson correlations revealed that the T1 ISEL total and subscale scores were all completely unrelated to the T1 negative life events variable (see Table 11). Negative life events at T1 were also unrelated to all T2 ISEL scale scores except for one. The T2 perceived tangible support variable was significantly negatively related to T1 negative life events ($r = -.21$, $p < .05$).

Pearson correlations also gave some insight into the structures of the two social support measures used. Part-whole correlations revealed that all of the SSQ subscales were highly positively correlated with the SSQ total scale score (ranging from $r = .84$ to $r = .86$, $p < .001$ at T1 and from $r = .84$ to $r = .93$, $p < .001$ at T2). The SSQ subscales most highly correlated with the SSQ total scale were the received tangible support (T1) and the received appraisal support (T2). The same correlational pattern was found for the ISEL scales (ranging from $r = .55$ to $r = .93$, $p < .001$ at T1 and from $r = .76$ to $r = .90$, $p < .001$ at T2). The

Table 11

Correlations for T1 Negative Life Events (NLE), T1 ISEL
Scales and T2 ISEL Scales

<u>ISEL Scales</u>	<u>T1 NLE</u>
T1	
Total	-.12
Tangible	-.16
Belonging	-.11
Appraisal	-.09
Self-Esteem	-.01
T2	
Total	-.12
Tangible	-.21*
Belonging	-.03
Appraisal	-.10
Self-Esteem	-.07

*p<.05

perceived belonging support subscale was most highly correlated with the total perceived support scale at both time periods.

It was found that test-retest reliabilities could be established by examining the across time correlation of each support scale. Pearson analysis revealed that the SSQ scales had fair test-retest reliabilities with correlations ranging from $r = .54$ to $r = .65$, $p < .05$. The SSQ total scale showed the best test-retest reliability. Correlations for the ISEL scales showed better test-retest reliability with most of the scales falling between $r = .75$ and $r = .85$, $p < .05$. However the perceived appraisal subscale showed the poorest test-retest reliability with $r = .48$, $p < .05$.

Pearson correlations also revealed that the subscales among each social support instrument were highly correlated. Within the ISEL, almost all the subscales at T1 were significantly positively correlated with each other ($r = .33$ to $r = .69$, $p < .05$). The perceived belonging subscale and the perceived self-esteem subscale were the most highly correlated. However, the perceived self-esteem subscale at T1 was not correlated with T1 perceived tangible support or perceived appraisal support. At T2, all of the subscales were highly positively correlated with each other, no exceptions ($r = .36$ to $r = .63$, $p < .05$). For the SSQ subscales, at T1 and at T2 all of the subscales were highly positively correlated with each other ($r = .57$ to $r = .74$,

$p < .05$ and $r = .60$ to $r = .87$, $p < .05$, respectively). The received appraisal subscale and the received self-esteem subscale were the most highly correlated scales at both time periods.

It was also found using repeated measures ANOVAs that the SHG reported significantly fewer negative life events than the RHG $F(1, 66) = 8.49$, $p < .005$, and this was stable over time. Although there was no significant difference over time, the trend was for both groups to report fewer negative events at T2. Means for the SHG and the RHG were 2.24 and 3.86 at T1, and 1.88 and 3.37 at T2 respectively. No significant difference was found between the groups on the basis of reported positive events. However, the trend at both times was in the direction of greater RHG positive events ($M = 5.8$ and $M = 4.26$ respectively) than the SHG ($M = 4.97$ and $M = 3.58$ respectively). Both groups showed a significant decrease in the number of reported positive events from T1 to T2 $F(1, 66) = 11.90$, $p < .001$. No significant group by time interaction effects were found for either variable. It was also found that there were significant differences between the groups and across time based on the number of total events, negative or positive. The RHG reported a greater number of total events than the SHG at both times $F(1, 66) = 4.92$, $p < .03$, but both groups showed a significant decrease in reported events from T1 to

dist2 $F(1, 66) = 10.47, p < .002$). There were no significant interaction effects for this variable.

DISCUSSION

Several hypotheses have been made in this study comparing the effects of social support as they relate to an individual's residential status. The two groups compared in this study were chosen because it seemed that each residence offered a readily available social network if the women chose to take advantage of it. However due to the differing compositions of these two groups, it was hypothesized that there would be some major differences with respect to the types and amounts of social support offered the individuals and, in turn, differences in psychological outcomes.

As was discussed earlier, past research has found that high levels of network cohesion, which may be measured by density and homogeneity, can do much to facilitate the perception and possibly the provision of social support to the individual. It was expected that the women in sorority housing would be very much like each other due to the reciprocity of choice in belonging to the group. Overall the women in sorority housing did appear to be more homogeneous based on race, desirability of residence, and grade point average. The statistical analysis did not support homogeneity with respect to family income level and religious background. However, if one looks closely at the distribution for family income, it becomes clear that the

majority of the SHG is in the middle to upper income brackets while the majority of the RHG is in the lower to middle income brackets. Neither group is homogeneous per se, but there is a clear pattern to the distribution. With regards to religious background, heterogeneity of the SHG may be explained by the random selection process.

Sororities were selected to participate in this study by a "luck of the draw" procedure. It just so happened that the only Jewish sorority on campus was chosen to be in the study. If this analysis had been done on the level of each individual house, it would be very likely that the SHG would have been found to be homogeneous on this variable also in contrast to the RHG.

It was also expected that the SHG would show greater density in their social networks than the RHG. Denser social networks can be defined by greater numbers of relationships among the network members apart from the individual. Thus if a network is composed of many coresidents, the network could be expected to be fairly dense. It was thought that because of the closer bond among sorority members and their greater satisfaction with their residence, that they would list more coresidents in their networks than the residence hall women. This is exactly what was found. The SHG group consistently listed significantly more coresidents in their social networks than did the RHG. With respect to the density measure, it was

interesting to find that although the proportion of coresidents was significantly different between the groups, the density was not. There was a nonsignificant trend toward higher density for the SHG, but this never reached significance. This finding becomes less perplexing however, when one examines the instrument used to measure density, and the overall difficulty with measuring the density of a person's network in a questionnaire format.

In this study, the subjects were asked to indicate, for each support person, how many of the other network members that support person had some kind of relationship. It was assumed that all relationships would be reciprocal, but that was not the case. Some of the questionnaires were clearly done incorrectly where only one relationship was indicated per support person and none of them were reciprocal. However, there were others where the subjects seemed to fully understand what was being asked, most of the relationships indicated were two way, but one or two of the relationships that were reported were not reciprocal. The question then became this: is reciprocity necessary for the existence of a relationship? It was determined that there might be situations where one person recognizes a relationship with another person, but that other person, for various reasons, does not view it in the same way (e.g., a couple that has not mutually ended a relationship, a clergyperson who gives support, but does not receive it from

a parishioner, etc.). For this reason, it was decided that all responses to this questionnaire would be accepted to allow for this circumstance. Unfortunately, it is likely that some of the questionnaires were simply completed incorrectly, and are contaminating the data. If these could be removed, the trends seen toward higher SHG network density may have reached significant levels. However if one takes into account the greater proportion of coresidents in the SHG networks one could extrapolate that the SHG networks are likely to be more dense than the RHG networks. More people are likely to know one another in the SHG networks.

As a result of the greater homogeneity and density of the SHG networks, one could also make the interpretation that these networks are also more cohesive. The women in these networks are very much like each other in many ways, and are part of a group with a specific identity and purpose to which they adhere. These women name more of their coresidents as being important support people for them than the RHG women. All of these factors are likely to add to a networks' degree of cohesion.

Another factor which may contribute to the degree of network cohesion may be the length of time an individual has known his/her network members. If an individual has known a majority of his/her support people for long periods of time, it is likely that the network is very stable and increases the likelihood that there are interrelationships between

network members. Although up until this point it has been thought that the SHG would report greater levels of cohesion than the RHG on most measures, for this variable it was expected that the RHG would report knowing their network members for longer periods of time. Because the study's sample consisted of junior and senior class women, it was assumed that the SHG, having more coresidents in their networks and having only joined the sorority in their sophomore years (university policy), would have known their network members on average one to two years. It was further assumed that the RHG, on the other hand, having fewer coresidents in their networks, would have network members that they had known since the beginning of college or before. However, the data showed the opposite. It was found that the SHG had known their network members on average two to four years while the RHG had known their members for an average of one to two years, a statistically significant difference. A possible explanation of this finding may be that many women who pledge sororities during their sophomore year have actually gotten to know their potential sorority sisters prior to joining. Eventually these women move into the sorority house and become coresidents with their support people. So for the SHG, the greater number of coresidents may help explain the greater average length of time they have known their network members. The RHG women may have changed residence halls a

couple of times, or had friends leave the hall for off campus housing. This could make their networks more transient, and may explain the shorter average length of time they have known their support people. Whatever the explanation, however, this finding provides further evidence for the greater stability and cohesion of the SHG networks over the RHG networks.

Although research has indicated that greater levels of cohesion can facilitate social support, there have also been findings to suggest that excessively cohesive networks can arouse conflict as well as provide support. It has been suggested that these networks are so dense and homogeneous that they do not easily tolerate change within the individual. As a person is confronted with new and challenging situations, the network may not be equipped to help the individual learn new adaptive behaviors or attitudes. In this study, no significant difference between the groups was found in the rate of conflict. Both groups indicated that on average they were experiencing conflict with their network members several times in a four week period. This was true at both time periods. However there was a trend at T2 indicating that the SHG subjects were experiencing somewhat greater conflict levels with their network members. This trend seems to be in line with the findings which indicate higher levels of density and homogeneity for this group. It is interesting to note that

the trend toward higher conflict rates occurs at T2 when the most change is imminent as compared to other times of the school year (e.g., graduations, final exams, summer break, new jobs, etc.).

One of the major hypotheses of this study was that the SHG, due to its higher network density and homogeneity, would have the perception of greater support than the RHG, but in terms of reported receipt of support the two groups would be basically the same. This notion was partially contradicted by the data. It was found that the SHG did feel significantly more supported than the RHG as measured by the Interpersonal Support Evaluation List. The women in the SHG indicated that, with respect to perceived appraisal support, perceived belonging support, and perceived tangible support, they felt significantly more supported than the RHG. This did not change over time. There was, however, no difference between the groups with respect to perceived self-esteem support, but both groups reported a significant decrease in perceived self-esteem support as the term progressed. When reported receipt of supportive behaviors is taken into account, it is the SHG that comes out ahead again. As measured by the Social Support Questionnaire, the SHG reported that it received significantly more overall supportive behaviors than the RHG. In addition, the SHG indicated that it received significantly more tangible supportive behaviors, more appraisal supportive behaviors,

and more belonging supportive behaviors from their networks than the RHG reported receiving from theirs. This finding did not change over the course of the term. However, in this case again, there were no significant differences between the groups with respect to received self-esteem supportive behaviors although the trend was for the SHG to be more supported on this variable also. This pattern was consistent over time. These findings suggest that people who report receiving more supportive behaviors do in fact report feeling more supported. It is interesting to note that the subscales for the SSQ and the ISEL seem to match pretty well in that the ones where more support is being given by the network, more support is also felt by the individual. These findings also suggest that the density and homogeneity of the SHG, although greater than that of the RHG, is not so high that it interferes with their receipt and perception of support, even though their conflict rate is somewhat higher at the second time period.

With the above findings in mind, it would follow that the SHG would show lower levels of psychological distress, and higher levels of life satisfaction than the RHG as a result of the increased received and perceived support levels of the SHG. This is exactly what was found. The SHG did show significantly lower distress levels and higher levels of life satisfactions than the RHG at both time periods. However while distress levels remained stable for

both groups over time, life satisfaction levels significantly decreased for the groups from T1 to T2. This suggests that social support, in some way, has an effect on the levels of psychological distress and life satisfaction that an individual experiences. Because the levels of distress though remained stable over time in contrast to the significant decrease in life satisfaction, it would seem that social support may have a greater association with the individual's level of psychological distress rather than level of life satisfaction. However, from the information gathered so far, it is unclear which type of support, received or perceived, has the most important relationship with level of distress. It is also unclear whether it has a direct or an indirect effect on distress (i.e., buffering the effects of stress).

Before the role of social support can be determined, one needs to examine the function of stress as it relates to psychological distress and social support. It seems logical that stress and distress should be related to each other in some way. This study found that they are in fact significantly positively related to each other. The data showed that as the number of T1 negative life events increased so did T1 and T2 levels of distress. It was also found that frequency of negative life events reported at T2 were also significantly positively associated with the levels of psychological distress at both T1 and T2. These

findings indicate that stress and distress are longitudinally related, as well as concurrently related, to each other. It was also found that, between the two groups, the SHG reported significantly fewer negative life events at both time periods than did the RHG. This finding is in line with the positive correlation found between stress and distress as the SHG was also found to suffer less psychological distress than the RHG throughout the course of this study.

What about the relationship between stress and social support? It was found that T1 negative life events was significantly negatively related to T1 received tangible support and T1 received belonging support, but was unrelated to T1 received appraisal support, T1 received self-esteem support, and T1 overall received support. It was expected that the significant relationship between these variables would be in a positive direction, but this finding indicates that as T1 stress increases, concurrent receipt of tangible and belonging supportive behaviors decreases. This same significantly negative relationship was found between T1 negative life events and the T2 received support variables, except for T2 received appraisal support which was again unrelated. With respect to the perceived support variables, T1 negative life events was unrelated to all of the T1 perceived support variables, and was significantly related in a negative direction to only the T2 perceived tangible

support variable. All other T2 perceived support variables were unrelated to T1 negative life events. Because only one ISEL subscale was related to the stress variable at either time, it is probably safe to say that subjective perception of support is, for the most part, independent of the frequency of negative life events. On the other hand, it seems that received supportive behaviors and negative life events are connected in some way, however not in the direction that would be expected.

This brings one back to the question of the mechanism of social support. These data seem to indicate that subjective perception of support and reported receipt of support may operate in different ways with respect to lowering distress. The data analysis revealed that it was the perceived support variables that interacted with the stress measure, not the received support variables. Thus the subjective perception of social support could be said to have indirect effects upon the level of reported distress. Whether this indirect effect is of a "buffering" nature or not is another matter.

The buffering hypothesis states that high levels of support will act as a moderator of distress so that distress levels resulting from high levels of stress will not be very different from those of low levels of stress. By the same token, it would be expected that under low support, one would experience much higher distress as a result of high

stress than as a result of low stress. This type of pattern was found for only one subjective support variable, perceived self-esteem support. This variable was found not only to moderate the effects of negative life events, but also the mere occurrence of events whether they be positive or negative. In addition, it seems that this variable buffers stress in a longitudinal manner only. Perceived self-esteem support at the first time period moderates the effects of T1 stress so that distress at T2 is lower. This fits the traditional definition of the buffering hypothesis. However, a more detailed analysis revealed that the rest of the perceived support variables, although they do have an indirect effect on distress, do not act as stress buffers, and do not appear to have longitudinal effects. It was found that for the most part they act as "health-enhancers" meaning that when an individual is under low levels of stress and has high perceived support, concurrent distress is at its lowest level. High perceived support does not have much of an effect when the level of stress is high. However the when support is low, there is not much difference between distress levels at high or low stress. This finding was most striking for the level of overall perceived support and for the level of perceived tangible support. These two variables had greater "health-enhancing" effects than did perceived appraisal support or perceived belonging support. It is interesting to note that these

"health-enhancing" effects were only seen for the above variables during the second time period. When it is considered that both groups reported a significant decrease in occurrence of events from T1 to T2 and there was a trend for them to have fewer negative events at T2 than at T1, it makes more sense that these "health-enhancing" effects would be seen at T2 rather than T1.

For those under high stress, this study has found that perceived self-esteem support is most effective at moderating later levels of psychological distress. Since no other perceived support variable was found to buffer stress, it seems that there is something very different about the perception of self-esteem support as opposed to the other types. Perceived self-esteem support has been defined as the "perceived availability of a positive comparison when comparing one's self to others" (Cohen & Hoberman, 1983). The items that make up this scale on the ISEL are ones which indicate the extent to which the individual feels good about herself in relation to the people around her. If one sees oneself as competent and capable, and believes that others see the same, it is likely that one will also feel more empowered to handle difficult situations. Feeling good about oneself may allow one to feel a heightened sense of self-reliance so that stressful situations are not as great a source of distress as they might be if one felt it necessary to rely on the assistance of others. The other

types of perceived support, the "health-enhancing" ones, all rely on the perceived availability of other people being there when one needs them rather than on one's perceived competence in relation to them. Thus it makes sense that when stress is low it is nice to feel as though there are people around with whom to share things. However, when stress is high, feeling as though there are a lot of people around to help may not make one feel any better. It may only make one more aware of how needy one is feeling at the time.

If there are two types of indirect effects of perceived social support, buffering and health-enhancing, which one is more important with respect to its effect on distress? In this study, it was found that there were no differences between the groups in reference to the level of perceived self-esteem support. If the buffering effect of this variable were the most important, then one would expect that there would be no differences in distress level between them. However, the SHG consistently reported lower levels of distress than did the RHG. Because the SHG reported not only lower frequencies of stress than the RHG, but also higher levels of the other types of perceived support, it could be said that it is the health-enhancing aspects of perceived social support which account for the lower SHG distress levels.

The mechanism of effect of the received support variables is more difficult to determine. It is clear that

they do not have any kind of moderating effects upon stress thus indirectly affecting distress levels. However it was noted above that as negative events increase, for the most part, the number of received supportive behaviors decreases and this occurs at both time periods. There also appears to be a longitudinal relationship in that T1 negative life events are negatively correlated with T2 received supportive behaviors. Increases in negative life events are also correlated with an increase in distress levels. It was also found that for the most part the received supportive behaviors variables are not related in any way to the level of distress at either time period. So if increase in negative life events is correlated with an increase in distress, and a decrease in received supportive behaviors, this tends to play down the importance of received supportive behaviors in this scheme of things. However the received supportive behaviors were found to correlate highly with the perceptions of social support. This may indicate that the mechanism of received supportive behaviors is to increase the individual's perception of support which then has an indirect effect on levels of distress.

Several conclusions may be drawn from this study. It seems clear that there are major differences in the composition of the two residences which impact the amount of social support that is felt by and given to the individuals who live there. A sorority house is made up of people who

have been actively chosen to belong to a larger group. The group has many activities and secret rituals which create a bond between the individual members. The women who live in the house are more likely to be involved with the group on a daily basis. The fact that these groups are called sisterhoods emphasizes the orientation toward close social ties among its members. Residence hall residents do not have this kind of tight group identity. They are not chosen to live in a particular hall by the other residents, and they do not practice secret rituals which separate them from other halls, and encourage the formation of close bonds. The sorority house women are more homogeneous with each other, and belong to denser social networks than the residence hall women which also indicates greater cohesion. These factors are no doubt influenced by the differences mentioned above. In turn, it appears that this increased cohesiveness of the SHG contributes to its increased levels of perceived and received social support over that of the RHG. This can be generalized to mean that individuals who have cohesive social networks can be expected to feel more supported and actually be more supported than those with looser social ties. From the data in this study, it could also be said that the people in cohesive networks also feel better psychologically, but that it is the health-enhancing effects of perceived support which seems to be the most important determinant of low distress.

APPENDICES

APPENDIX A

INTERPERSONAL SUPPORT EVALUATION LIST

Instructions:

This scale is made up of a list of statements each of which may or may not be true about you. For each statement we would like you to circle probably true (PT) if the statement is true about you or probably false (PF) if the statement is not true about you.

You may find that many of the statements are neither clearly true nor clearly false. In these cases, try to decide quickly whether probably true (PT) or probably false (PF) is most descriptive of you. Although some questions will be difficult to answer, it is important that you pick one alternative or the other. Remember to circle only one of the alternatives for each statement.

Please read each item quickly but carefully before responding. Remember this is not a test and there are no right or wrong answers.

- | | | | |
|----|----|-----|---|
| PT | PF | 1. | I know someone with whom I would feel perfectly comfortable talking about any problems I might have meeting people. |
| PT | PF | 2. | If I needed it, my family would provide me with an allowance and spending money. |
| PT | PF | 3. | I know someone who would loan me \$50 so I could go away for the weekend. |
| PT | PF | 4. | If I wanted a date for a party next weekend, I know someone who would fix me up. |
| PT | PF | 5. | Most of my friends are more satisfied or happier with themselves than I am. |
| PT | PF | 6. | Most of my friends have more control over what happens to them than I. |
| PT | PF | 7. | I can get find someone who I enjoy spending time with whenever I want. |
| PT | PF | 8. | Most people are more attractive than I am. |
| PT | PF | 9. | I don't feel friendly with any teaching assistants, professors, campus, or student officials. |
| PT | PF | 10. | I don't know anyone who makes my problems clearer and easier to understand. |
| PT | PF | 11. | Most of my friends have not adjusted to college as easily as I have. |
| PT | PF | 12. | Even if I needed it my family would (or could) not give me money for tuition and books. |

- PT PF 13. There are people who I regularly run with, exercise with, or play sports with.
- PT PF 14. I know someone who would bring my meals to me if I were sick.
- PT PF 15. I don't have friends who would comfort me by showing some physical affection.
- PT PF 16. Most of my friends think that I'm smart.
- PT PF 17. Lately, when I've been troubled, I keep things to myself.
- PT PF 18. I don't usually spend two evenings on the weekend doing something with others.
- PT PF 19. There isn't anyone with whom I would feel perfectly comfortable talking about any problems I might have getting along with my parents.
- PT PF 20. I don't know anyone who would loan me several hundred dollars to pay a doctor bill or dental bill.
- PT PF 21. Most of my friends are more popular than I am.
- PT PF 22. People hang out in my room during the day or in the evening.
- PT PF 23. I will have a better future than most other people will.
- PT PF 24. I am not a member of any social groups (such as church groups, clubs, teams, etc.).
- PT PF 25. I don't know anyone who would get assignments for me from my teachers if I was sick.
- PT PF 26. I know someone with whom I would feel perfectly comfortable talking about any problems I might have with drugs.
- PT PF 27. I know someone with whom I would feel perfectly comfortable discussing any sexual problems I might have.
- PT PF 28. Most people who know me well think highly of me.
- PT PF 29. I don't know anyone who would give me some old furniture if I moved into my own apartment.
- PT PF 30. Most people think I have a good sense of humor.
- PT PF 31. Lately, I often feel lonely, like I don't have anyone to reach out to.
- PT PF 32. I know someone who would loan me \$100 to help pay my tuition.
- PT PF 33. If I decided at dinner time to take a study break this evening and go to a movie, I could easily find someone to go with me.
- PT PF 34. I hang out in a friend's room quite a lot.
- PT PF 35. There isn't anyone with whom I would feel perfectly comfortable talking about any problems I might have making friends.

- PT PF 36. I belong to a group that meets regularly or does things together regularly.
- PT PF 37. I know someone who would give me some old dishes if I moved into my own apartment.
- PT PF 38. I don't talk to a member of my family at least once a week.
- PT PF 39. Most of my friends don't do as well as I do in school.
- PT PF 40. Most of my friends are more interesting than I am.
- PT PF 41. I know someone with whom I would feel perfectly comfortable talking about sexually transmitted diseases.
- PT PF 42. I don't know anyone who would loan me their car for a couple of hours.
- PT PF 43. There isn't anyone with whom I would feel perfectly comfortable talking about difficulties with my social life.
- PT PF 44. I know someone with whom I would feel perfectly comfortable talking about any problems I might have adjusting to college life.
- PT PF 45. I don't know anyone who would help me study for an exam by spending several hours reading me questions.
- PT PF 46. There isn't anyone with whom I would feel perfectly comfortable talking about my feelings of loneliness and depression.
- PT PF 47. I know someone with whom I would feel perfectly comfortable talking about problems I might have budgeting my time between school and my social life.
- PT PF 48. I don't often get invited to do things with other people.

APPENDIX B

SOCIAL SUPPORT QUESTIONNAIRE

Directions: This questionnaire asks about the people in your life who provide you with support. Please list each significant person in your life on the lines provided **directly to the right**. Consider any and all persons with whom you have a meaningful relationship and who have an impact on your life either positive or negative. Use only first names or initials as in the following example:

First Name or Initials

1. D.S.
2. Tim
3. Deb

and so on...

You do not have to use all 20 spaces. Use as many spaces as you have important persons in your life.

WHEN YOU HAVE FINISHED YOUR LIST, PLEASE TURN TO PAGE 2.

For each person you listed, please answer the following questions by writing in the number that applies.

- 1 = none at all
- 2 = a little
- 3 = some
- 4 = quite a bit
- 5 = a great deal

Question 1

How much tangible support
(i.e., loans you money, helps
you when you're sick, gives
you rides when your car's not
working, etc.) have you
received from this person in
the past four weeks?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Question 2

How much belonging support
(i.e., hanging out together,
having dinner together,
spending time together, etc.)
have you received from this
person during the past four
weeks?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

- 1 = none at all
- 2 = a little
- 3 = some
- 4 = quite a bit
- 5 = a great deal

Question 3

How much appraisal support
(i.e., ability to talk to the
person about very personal
problems or issues, etc.) have
you received from this person
during the past four weeks?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Question 4

How much self-esteem support
(i.e., tell you you're smart,
say that they like you, laugh
at your jokes, etc.) have you
received from this person
during the past four weeks?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Question 6

How long have you known this person?

- 1 = less than six months
- 2 = between six months and a year
- 3 = one to two years
- 4 = two to four years
- 5 = four years or more

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____
- 16. _____
- 17. _____
- 18. _____
- 19. _____
- 20. _____

Question 7

Where does this person live?

- 1 = same residence hall or house as me
- 2 = somewhere else on campus
- 3 = somewhere else off campus
- 4 = another city (outside the Lansing area)

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____
- 16. _____
- 17. _____
- 18. _____
- 19. _____
- 20. _____

Question 8

How often during the last four weeks has this person caused you trouble or made things more difficult for you?

- 1 = daily or almost daily
- 2 = several times a week
- 3 = several times in the past four weeks
- 4 = once or less in the past four weeks

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____
- 16. _____
- 17. _____
- 18. _____
- 19. _____
- 20. _____

First Name or
Initials

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Question 9

Which people on your list have some kind of relationship with each other? To indicate this, for each person on your list circle the number which corresponds to another person on your list that he/she knows (they have known each other long enough to be more than social acquaintances, etc.).

1. 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
2. 1 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3. 1 2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
4. 1 2 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5. 1 2 3 4 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
6. 1 2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
7. 1 2 3 4 5 6 8 9 10 11 12 13 14 15 16 17 18 19 20
8. 1 2 3 4 5 6 7 9 10 11 12 13 14 15 16 17 18 19 20
9. 1 2 3 4 5 6 7 8 10 11 12 13 14 15 16 17 18 19 20
10. 1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20
11. 1 2 3 4 5 6 7 8 9 10 12 13 14 15 16 17 18 19 20
12. 1 2 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20
13. 1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 20
14. 1 2 3 4 5 6 7 8 9 10 11 12 13 15 16 17 18 19 20
15. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 17 18 19 20
16. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 17 18 19 20
17. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 19 20
18. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 19 20
19. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20
20. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

APPENDIX C

Life Events Checklist

Instructions:

Here is a list of events which may or may not have happened in your life during the past ten weeks. If any of these events has happened to you during this time, place the appropriate number, describing how positive or negative the event was for you, in the blank next to the item. If the event has not happened to you in the past ten weeks, then leave the blank empty.

Use the following scale to make your ratings:

1	2	3	4
very negative	negative	positive	very positive

Remember, only place a number in the blanks of those events that have happened to you during the past ten weeks.

- _____ 1. Became engaged or got married.
- _____ 2. Became a parent.
- _____ 3. Had marital problems.
- _____ 4. Divorced or separated from spouse.
- _____ 5. Had a serious problem with a close family member.
- _____ 6. Parent(s) lost his or her job.
- _____ 7. Parent(s) started a new job.
- _____ 8. Your family's financial status became much better or much worse.
- _____ 9. A close family member became seriously ill or died.
- _____ 10. A close family member was a victim of a crime.
- _____ 11. A close family member had trouble with the law (arrested, went to jail, etc.).
- _____ 12. Parents separated or got a divorce.
- _____ 13. Parent(s) married.
- _____ 14. Made a new close friend.
- _____ 15. Had serious problems with a close friend.
- _____ 16. Separated from a close friend (e.g. due to moving).
- _____ 17. Visited with a close friend whom you had not seen in a long time.
- _____ 18. A close friend became seriously ill or died.
- _____ 19. A close friend was a victim of a crime.
- _____ 20. A close friend had trouble with the law (arrested, went to jail, etc.).
- _____ 21. Started a relationship with a new boyfriend.

- _____ 22. Had relationship problems with boyfriend.
- _____ 23. Terminated relationship with boyfriend.
- _____ 24. Started living in a new housing situation (new roommate(s), new residence).
- _____ 25. Had a serious conflict with your roommate(s).
- _____ 26. Had difficulties with person(s) in charge of your residence.
- _____ 27. Developed a friendly or close working relationship with one of your professors.
- _____ 28. Had a serious problem with one of your professors.
- _____ 29. You started a new job.
- _____ 30. You had a serious job-related problem.
- _____ 31. You lost your job.
- _____ 32. Your own financial status became much better or much worse.
- _____ 33. You transferred or returned to the university after a long time away (more than 6 months).
- _____ 34. Decided on a major or career.
- _____ 35. Improved your mastery of academic material.
- _____ 36. Had increased demands from academic course work.
- _____ 37. Completed a major class assignment (long term paper, computer program, etc.).
- _____ 38. Had a hassle with the university bureaucracy.
- _____ 39. Had a major change in work or school hours.
- _____ 40. Began, increased, or decreased use of alcohol or drugs.
- _____ 41. Started a new hobby or recreational activity.
- _____ 42. Joined or quit a sorority or fraternity.
- _____ 43. Joined or quit a sports team or an organization (voluntary service, political, etc.).
- _____ 44. Not accepted into a social organization you wanted to join.
- _____ 45. Began having sex for the first time.
- _____ 46. Increased or decreased frequency of sexual activity.
- _____ 47. Experienced difficulties with sexual performance.
- _____ 48. Possibility of an unwanted pregnancy or had an abortion.
- _____ 49. You were involved in an accident.
- _____ 50. You were a victim of a crime.
- _____ 51. You had a problem with the law (arrested, went to jail, etc.).
- _____ 52. Your physical appearance changed significantly.
- _____ 53. Your personal health habits changed significantly.
- _____ 54. Your personal health became significantly better or worse.
- _____ 55. You received recognition or an award for achievement.

APPENDIX D

Composite Symptom Checklist

Instructions:

Please use the following scale to indicate how often you have felt any of the ways listed below during the two past weeks. Place the appropriate number in the blank next to the item.

- | | 1 | 2 | 3 | 4 |
|-------|-------|---|-------|----------------|
| | never | occasionally | often | nearly all the |
| | time | | | |
| _____ | 1. | Did you ever tend to lose weight when you had something important bothering you? | | |
| _____ | 2. | Were you ever bothered by having an upset, acid, or sour stomach? | | |
| _____ | 3. | Did you ever feel you were bothered by all sorts of pains and ailments in different parts of your body? | | |
| _____ | 4. | Did you ever tend to feel tired in the morning or find it difficult to get up in the morning? | | |
| _____ | 5. | Did you ever have a loss of appetite? | | |
| _____ | 6. | Were you ever troubled by your hands or feet sweating so that you felt damp and clammy? | | |
| _____ | 7. | Were you ever troubled by headaches or pains in the head? | | |
| _____ | 8. | Did you ever feel that you were going to have a nervous breakdown? | | |
| _____ | 9. | Did you ever faint or black out? | | |
| _____ | 10. | Were there ever times when you could not take care of things because you just couldn't get going? | | |
| _____ | 11. | Were you ever bothered by your heart beating hard? | | |
| _____ | 12. | Were you ever bothered by shortness of breath when you were not exercising or working hard? | | |
| _____ | 13. | Did you ever have any nightmares? | | |
| _____ | 14. | Did your hands ever tremble enough to bother you? | | |
| _____ | 15. | Were you ever troubled by "cold sweats"? | | |
| _____ | 16. | Did you ever have any trouble getting to sleep or staying asleep? | | |
| _____ | 17. | Were you ever bothered by nervousness, feeling fidgety, or tenseness? | | |
| _____ | 18. | Did you ever have spells of dizziness? | | |
| _____ | 19. | Did any ill health ever affect the amount of work you did? | | |
| _____ | 20. | Did you ever feel weak all over? | | |
| _____ | 21. | For the most part, did you feel healthy enough to carry out the things you wanted to do? | | |

APPENDIX E

Life Satisfaction Scale

Instructions:

Use the following scale to indicate how often you feel satisfied or dissatisfied about several areas of your life. Place the appropriate number in the blank beside the item.

1	2	3	4	5
never or	seldom	sometimes	usually	always
or				
rarely				almost
always				

- ___ 1. I am really enjoying my courses this term.
- ___ 2. I think my social life is pretty boring.
- ___ 3. Most of the school work I do is not very worthwhile.
- ___ 4. I feel like I have some great friends at college.
- ___ 5. I feel like there are a lot of opportunities at MSU to learn important things.
- ___ 6. Most of my teachers are very good, care about students, and get me interested in the course material.
- ___ 7. I hardly ever feel like I have any fun here.
- ___ 8. I have enjoyed many of the recreational and cultural opportunities the university atmosphere offers.
- ___ 9. Overall, I am very satisfied with my courses and the course work I am doing.
- ___ 10. Overall, I am very satisfied with my social life.

APPENDIX F

Demographics Sheet

1. Place of Local Residence _____
2. Was this the place you most wanted to live? ____ yes
____ no
3. Class Rank ____ Sophomore
____ Junior
4. Age _____
5. College Major _____
6. Estimated Family Income Level in
Thousands of Dollars: \$ _____
7. Race ____ Black
____ Caucasian
____ Asian
____ Native American
____ Other (specify: _____)
8. Religious Background ____ Catholic
____ Protestant
____ Jewish
____ Other (specify: _____)
9. Grade Point Average _____ Cumulative
____ Winter Term
____ Spring Midterm (if
applicable)

If you are currently living in a residence hall, please
answer the following questions:

10. How many times have you been through sorority rush? ____
11. If you have been through sorority rush, were you ever
accepted but decided not to join? ____ yes
____ no
12. Are you currently a member of a sorority? ____ yes
____ no

13. If you are not currently a member of a sorority, what discouraged you from participating in rush or from joining a sorority? (rank each item according to its priority for you with 1 being the highest)

____ financial obligation
____ time commitment
____ negative influence from family or friends
____ negative image associated with the system
____ lack of information
____ afraid of rejection
____ past negative experience

14. What are your perceptions of the sorority system's prime objectives? (rank each one according to how you see its priority with 1 being the highest)

____ social	____ friendship
____ service	____ status
	____ symbol
____ philanthropic (charity work)	

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