

**SOCIAL FULFILLMENT OUTSIDE OF WORK
AND ITS EFFECTS ON AT-WORK ISSUES**

By

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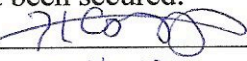
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Abstract

Much research has been compiled on how relationships at work affect job performance, motivation, and satisfaction. There has been very limited research, however, on whether or not relationships outside of work also affect these factors. This thesis will attempt to explore previous research findings and how they may relate to this topic. It will also delve into the findings of the primary research completed during this study, and will cover the results and conclusions this research brought about. Results indicate that people may act outside of their stereotypical need for affiliation role based on how socially fulfilled they are. Results also indicate that those who are emotionally overloaded by the number of relationships in their life may have lower job performance, satisfaction, and motivation. Also supported was the discovery that there is a curvilinear relationship to the number of relationships a person has outside of work and their job satisfaction. This thesis will cover all of these topics and findings and attempt to relate them in a practical manner to both people and organizations.

Introduction

“Must we then make as many persons our friend as possible? Or as it seems to have been appropriately said in the case of hospitality...will the rule also apply in the case of friendship, that we should neither be without friends, nor have too many?”
(Aristotle 256)

This thesis will attempt to orient its reader with a practical answer to the above question in correlation with job performance. The human need for social interaction will be discussed and analyzed, and the fulfillment of this need, both in and out of the work place, will be looked at. The outcome of relationships at work will be manifested in this introduction through prior research. The research this thesis will attempt to accomplish, and add to any prior studies, will focus around social need fulfillment outside of the workplace and how that may or may not optimize job performance.

As humans, how many relationships do we need in order to function properly, even optimally? How many friends are too many? Must we develop and maintain friendships in order to thrive? All humans understand the need for companionship. The need to share, to socialize, and to communicate, are all developed through relationships with others. In fact, humans share quite a few essential needs. Many are familiar with at least one type of categorizing system for separating and ranking human needs such as A.H. Maslow's 1943, “A Theory of Human Motivation”, introducing a five-tiered pyramid of human needs, or C.P. Alderfer's 1969, “An Empirical Test of a New Theory of Human Needs”, which introduces the E.R.G. Theory of human needs. These systems determine that humans will innately and instinctively attempt to achieve their optimal level of each of these needs in order to experience self-satisfaction and fulfillment.

Therefore, they conclude, that human needs can be used as motivational tools for sculpting achievement. Discussed first is one of the founding theories of human need and motivation, Maslow's Hierarchy of Needs Theory (Maslow 370).

Maslow founded his hierarchy on five specific human needs. At the bottom of his hierarchy are physiological needs, the need a human has for bare survival, such as the need for shelter and food (Maslow 372). Above that need is the need for safety, which protects humans from emotional and physical danger (376). Next, social needs, the topic in which this thesis will focus, are built specifically on "affection, belongingness, acceptance, and friendship" (Robbins and Judge 187). Past social needs, Maslow reveals the need for esteem, which includes the feeling of achieving a goal and being recognized and respected (Maslow 381), and finally the need for self-actualization, developing oneself in order to achieve one's full potential (382).

Maslow theorized that a need lower in the hierarchy must be dominantly satisfied before the next need can be perceived (Robbins and Judge 187). He therefore believed that if a human was attempting to satisfy their social needs then, by nature, their safety and physiological needs were predominantly fulfilled. Once their social needs were essentially satisfied, they would then begin to seek out ways to satisfy their need for esteem. Since human needs can be used as a motivation tool, Maslow determined that one must identify the level of needs a person is attempting to progressively fulfill in order to determine methods for motivation with that individual. The significance of this theory comes in the statement, "a substantially satisfied needs no longer motivates" (187). This statement is key when analyzing Maslow's third tier of social needs and how fulfillment, or lack of fulfillment, alters an individual's motivation and therefore achievement. This is

an important theory to consider when attempting to investigate how social fulfillment outside of the workplace might alter one's motivation and performance at work, and provides a steppingstone for the research completed in this thesis.

Another popular theory of human needs is C.P. Alderfer's E.R.G. Theory. E.R.G. Theory varies from Maslow's on a few levels. Instead of having a rigid hierarchy of five human needs, it focuses on three interchangeable needs: existence, relatedness, and growth (Alderfer 145). Existence is similar to Maslow's physiological and safety needs, and refers to the physical needs a human experiences (145). Growth is similar to Maslow's esteem and self-actualization needs in that it "involves a person making creative or productive effects of himself and the environment" (146). The need focused on in this thesis is relatedness, very much like Maslow's social needs. According to Alderfer, relatedness needs contain "all the needs which involve relationships with significant other people", and of course, the opposite would be a "distance or lack of connectedness" (146). This need is recognized to be significant because it is the only need that requires a symbiotic and mutual action. It requires there to be two or more people who are "mutually sharing" their own experiences, thoughts, and feelings with one another (146). Relatedness, as well as Maslow's social needs, cannot be fulfilled by one person, but rather must involve another, and therefore, creates a need which is dependent on others rather than purely self.

It is important to note, that while there are certain similarities between the human needs each of these theories defines, there is a stark difference in how each believes these needs are satisfied. As opposed to Maslow, who states that one needs must be predominantly satisfied before the next is realized, Alderfer theorized a less rigid

structure. Alderfer proposed that needs do not act individually, but that needs can be satisfied at different levels at the same time (144) and desires to fulfill these needs do not come in a hierarchy but, rather, occur concurrently with each other (148). While Maslow believed a human would not work on fulfilling his social needs until his safety and physiological needs were substantially met, Alderfer believed that one could attempt to satisfy existence, relatedness, and growth needs all at once.

Alderfer and Maslow did, however, agree that certain needs could produce motivation, whether it was in a strict or loose structure. For the purpose of this thesis, the most important agreement they formed is found in Alderfer's fourth proposition when he stated that "the less relatedness needs are satisfied, the more they will be desired" (148). Maslow and Alderfer would agree that a lack of social needs fulfillment would create motivation to fulfill this need. This might also imply the inverse in saying that if social needs are largely fulfilled, they no longer motivate, which Maslow clearly states in his theory. These theories are critical to the research done here, as they imply that fulfilling social needs outside of the workplace may modify one's motivation and performance in the work place.

A closer look at both social and relatedness needs leads to David McClelland's acquired-needs theory, specifically the need for affiliation. The need for affiliation, like social and relatedness needs, is the need to connect and interact with others (Stahl 6). However, he goes beyond the other theories by categorizing humans into two branches of social needs, high need for affiliation and low need for affiliation (7). Those with high need desire a high amount of social interaction and are more likely to seek out opportunities and experiences that involve people (7). Low needs do not require a great

amount of social interaction to be socially fulfilled, and prefer to work with and maintain fewer friendships (7). This is important to note when using social factors as a motivation tool. One person may require much less interaction to be satisfied than another. Targeting and meeting a person's need for affiliation is optimal. Anything above or below their optimal amount of social interaction may cause dissatisfaction or emotional overload. In order to function favorably, one must be socially fulfilled according to their own need for affiliation. It is important to take this factor into consideration for the purposes of this study. Everyone's need for affiliation will differ, and this will have an effect the outcome of measuring whether or not they are being socially fulfilled outside of the workplace. One person may only need two close friends to feel socially fulfilled, while another may require much more. Taking this into consideration acknowledges the fact that the actual number of relationships one has does not determine their social fulfillment as much as the number of relationships they have relative to their need for affiliation. In this study, each person's individuality, in regards to need for affiliation, will be maintained so that accurate social fulfillment can be measured as everyone's level of need for affiliation varies.

The need for social interaction has thusly been established. With this founding, it is now essential to explore how social needs can be fulfilled. It has already been ascertained that social needs refer to a person's need to feel connected with others. How does one connect and develop relationships with others? This question must first be answered by understanding situations and areas that promote these initial connections. An environment that fosters associations and relations in today's society is often referred to as a community.

Communities, many times, used to refer to a group of people linked because of geographical location; however, with today's technology defying geographical boundaries, communities now refer to a group of people who, knowing each through a formal organization, connect in an informal group (Royal and Rossi 395). It must be noted that the fundamental root of this principal stems from its relation to a formal organization. Many social groups are formed through formal organizations. This could be a school, a workplace, a club, or any number of formalized institutes. Of course, relationships can be initiated through introductions that take place outside of a formal organization, but it is often found that people are motivated to seek out relationships in the formal organizations they belong to already as a commonality already exists in that they mutually share membership in the organization (Royal and Rossi 396).

The cohesion between places where relationships are enacted the formation of a "sense of community" that fosters social needs fulfillment. S.B. Sarason defines a sense of community as "the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure." (Sarason 157). Any formal organization containing a sense of community is likely to promote social connections and therefore provide for the fulfillment of social needs. Researchers have identified four potential factors relating to the fulfillment of social needs in a community. In order to satisfy one's need for affiliation, the following four might exist: membership, influence, integration and fulfillment of needs, and a shared emotional connection (McMillan and Chavis 8). Membership is the need for a community to provide a sense of belonging, where one

feels their own interests are respected and cared for (9). Influence is “a sense of mattering”, or one’s ability to have an impact on the group as a whole through participation (9). Integration and fulfillment of needs is the ability for a group to prioritize their own needs and values based on individuals in the group, and then work collectively to provide the realization of those needs to each member (9). Finally, shared emotional connections arise when members are able to share their past experiences, thoughts, and ideas and relate them to one another (9). Of course, other frameworks defining the ability for a community to promote its members’ social needs fulfillment have been developed. In fact, individuals may develop their own personal scope of what a community must provide in order to fulfill their own needs. However, the four mentioned above provide a satisfactory arrangement of the ways social needs can be fulfilled for those belonging to a group or community.

As mentioned, relationships can be inspired in a variety of locations. In fact, in certain arenas, the formation of these informal groups or relationships can lead to positive benefits for the collective organization. For those pursuing academia, school or college provides ample opportunities for relationship formation. It was theorized by Royal and Rossi that “strong interpersonal relations in a school can, by contrast, promote a sense of belonging, encourage the provision of needed curricular and social supports, and provide a source of personal motivation for both staff and students” (Royal and Rossi 397). Their research supported this theory by positively correlating students’ sense of community with their participation in after-school activities, motivation in the classroom, and resistance to dropping out (410). They also investigated the effects of community and social connections among professionals in their work place. They suggested that

individuals who feel connected to others in their workplace may develop a sense of “belonging and identity” associated with their organization (Royal and Rossi 396). In fact, much research has been conducted to investigate the effects of social interaction at work with job performance factors, which is crucial since, according to a study by the Nation Sleep Foundation, the average American spends approximately 45 hours at work per week (WBA Market Research). These findings have validated the importance of social needs fulfillment, especially to an organization.

As discussed above, humans needs often translate into intrinsic motivation for an individual. Motivation can be seen as a critical component of job performance, as motivation leads to the desire to be successful and do well for both self and the organization. Research conducted by Tom Rath reveals how achieving social fulfillment at work can increase one’s motivation. His studies revealed that those who have a close friend at work are “seven times more engaged” in their job (Rath 53). In fact, research also revealed that those without a “best friend” at work have only a 1 in 12 chance of being engaged in their work throughout the day (54). Without a close relationship at work, the motivation to put forth a high level of effort is marginal. Those who are not fulfilling social needs through their workplace environment risk becoming disconnected and losing motivation.

Another important motivation factor affecting job performance is the motivation to stay safe. Those who have friendships at work reportedly have fewer safety violations and incidents (197). With a friend, workers create a safer environment for themselves and others. Concern for one another’s safety exists due to working relationships, and workers are more likely to watch out for their safety and the safety of their co-workers.

Using the “relatedness” factor from the ERG theory, other research demonstrated that satisfaction of the relatedness need factor is positively related to one’s “affective commitment to an organization” (Greguras and Diefendorff 472). Emotional connection and commitment to an organization is crucial for individual motivation. If one is committed to an organization, they exhibit higher motivation, which leads to higher overall job performance. Again, the ability to fulfill one’s need for affiliation at work provides incentives for motivation and therefore job performance.

Another benefit that fulfilling social needs at work provides to an organization is the development of its members’ interpersonal skills. The development of this skill set can not only lead to increased communication and goodwill within the organization, but can provide beneficial improvements for outside working relationships with vendors and customers. “Work offers people a chance to get out of the house, and interact with other people” (Snyder and Lopez 415). If a workplace offers the opportunity to build relationships, they are offering the ability to increase their employees’ interpersonal skills. Working for the same organization creates an automatic mutuality in which experiences and ideas can be shared and bonds can be formed (415). Fulfilling social needs at work also help employees “feel informed” as well as feel “that their opinions count” (Rath 53). Not only are interpersonal skills being nurtured, but the organization can also enjoy the benefits of increased communication leading to innovation and increased efficiency.

Another indicator of job performance and organizational well-being is an individual’s job satisfaction. Stated very clearly, “the fulfillment of employee’s needs results in job satisfaction, which subsequently predicts turnover” (Greguras and

Diefendorff 466). If an employee feels that their needs, such as social or relatedness needs, are being fulfilled through their work, they will prove to be more satisfied with their job. A case study, conducted among college students, showed that those working in a group to complete a given task were more satisfied than those who had to complete the task individually, no matter what their measured need for affiliation was (Klein and Pridemore 45). This, as well as other research, concludes that while some individuals are high need for affiliation, and some are low, all individuals gain satisfaction out of working collaboratively and interacting socially.

Quantifying this fact, Rath concluded in his research that an employee can increase satisfaction with a company by nearly 50% just by having a close friend at work (Rath 54). Having a close friendship at work can also “double the chances of having a favorable perception of you pay” (54). In middle-income bands, employees’ perceptions of their salary were favorably increased 1.75-2 times of those without a close friend at work, and in lower income communities the increased perception was even higher at a pure 200%, showing that having a friend at work can offer an employee an “intangible compensation” (165).

A sense of satisfaction can be derived from other factors of social need fulfillment as well. As mentioned before, employees are more likely to be safe if they have a close friend at work. An environment that is interpreted by employees to be physically safe actually increases job satisfaction (Snyder and Lopez 416). Therefore, with working relationships, a workplace naturally adopts safer actions and standards and therefore increases its employees’ satisfaction. Social connections can also provide a sense of emotional security. Those with a close friend at work are 37% more likely to feel “that

someone at work encourages their development”, 27% more likely to feel “that their opinions count at work”, and 21% more likely to feel that “they have the opportunity to do what they do best every day” (Rath 198). It is easy to see how having social connections at work leads to increased job satisfaction and impacts overall job performance.

Finally, one of the most physical manifestations of job performance can be seen in an employee’s task results, including both time on task and quality of his or her end result. As might be predicted, working on a task collaboratively often takes more time. In the college student case study, those working in a group took a longer time to complete the given task than those who worked individually (Klein and Pridemore 43). This can be expected because, with a group, individuals’ ideas and thoughts must be shared and answers must be agreed upon as a collective group rather than one person coming to a decision on their own. However, it is also important to note that the lowest task performance came from those with a high need for affiliation who were forced to work alone (Klein and Pridemore 43). This indicated that while working individually may be a quicker mode for completing a task, the end result might be of bad quality if those requiring social interaction are forced to work alone. Besides working in a group, those who have a friend at work are able to get more done in less time than those who do not have a close friend at work (Rath 53). Also, those with a close friend at work have been proven to have higher customer loyalty scores, and more profitable teams (197). While working in a group setting may lead to a longer time on task, it can be beneficial for a company, as those with higher need for affiliation will perform better. Also, those who have the ability to fulfill social needs at work are able to be more profitable for an

organization.

Motivation, interpersonal and communication skills, job satisfaction, time on task, and quality of task results all affect job performance. As seen from the above research, the ability for an individual to fulfill social needs and foster friendships at work can positively impact each of these factors. Without a doubt, research supports the benefits that relationships at work can provide not only to an individual, but also to an organization at large. While much research has been conducted in order to understand the outcomes of having social needs fulfilled at work on job performance, the next question to ask is “how does fulfillment of social needs and friendships outside of the workplace affect job performance?”

The variable of relationships outside of the workplace is not often considered a factor when connecting job performance with social needs fulfillment. Rath says it well when he states, “The emotional boundaries between work and personal life are blurred” (Rath 42). Social needs fulfillment goes beyond the workplace, and factors beyond an employee’s desk can affect his or her work. Much of the past research discussed is limited in that it does not acknowledge this completely. These limitations exclude an employee’s out-of-work social life, focusing solely on their at-work relationships, and do not acknowledge this variable when considering motivation and performance at work.

An example of how social needs fulfillment outside of the workplace can be seen affecting motivation and job performance is found in a conclusive statement made from Rath’s research: “I have plenty of friends and do not feel the need to get that close to people at work” (47). This statement, made by interviewees during Rath’s research suggests that an employee’s motivation may be altered by their fulfillment outside of the

work place. In fact, this may suggest that a person's tendency to be high or low need for affiliation may be altered at work due to outside factors. A person who has a high need for affiliation may assume the characteristics of a person with a low need for affiliation at work if they experience the statement made above. A person may lose motivation to make connections at work and assume Lnaf characteristics if they are experiencing "emotional overload" outside of work. Emotional overload can take place when a person is spreading himself or herself too thin across too many relationships causing them to "feel and give excessive amounts of emotion" (Bradley). As Aristotle stated in reference to friendships:

"For it is troublesome to make a return of favors to a great many...Consequently, more than what are sufficient for each particular kind of life, are superfluous and an impediment for living well, and therefore there is no need of them" (Aristotle 256).

On the opposite end of the spectrum, if one is not receiving any social need fulfillment outside of work they may be constantly seeking relationships at work to fulfill this need. This may even cause a Lnaf to assume characteristics of a Hnaf at work in order to fulfill their social needs. As discussed before, Americans spend an average of 45 hours at work (WBA Market Research). Therefore, there is a possibility that they are not receiving sufficient time and opportunity to form relationships outside of work. Having the motivation to seek relationships at work obviously has benefits, as seen from the research already discussed. However, if they are totally unfulfilled outside of work, they may spend a majority of their time at work seeking these connections to fulfill their needs

and therefore weaken their productivity and performance. This possibility will be explored further in this study.

As Aristotle stated, “Perhaps then it is as well not to seek to have as many friends as possible, but only as many as are sufficient for society” (Aristotle 257). The question therefore is, “Is there an optimal amount of social interaction outside of work that will positively influence job performance?” For the worker who is socially satisfied outside of work, one might be concerned with the theory that “a substantially satisfied need no longer motivates” (Robbins and Judge 187). It is therefore hypothesized, based on all the research discussed, that those who are substantially socially fulfilled outside of work will no longer be motivated to fulfill this need and will consequently not seek out relationships at work and therefore have lower motivation and job performance. It is also hypothesized that those lacking any social fulfillment outside of the workplace will constantly seek to fulfill this need at work, focusing less of their attention on their tasks, and will therefore be less productive, leading to lower performance. Based on the research discussed in this introduction, a list of hypotheses has been drafted and can be seen below. The next section of this thesis will attempt to support or reject these suppositions.

Hypotheses

1. A person with Hnaf, who is socially fulfilled outside of work, will behave more like a person with Lnaf. *They will be less involved in extracurricular company activities and workplace committees, and will desire and have fewer friendships at work than their unfulfilled Hnaf counterparts . The numbers will be more similar to the Lnaf subjects.*

2. A person with Lnaf, who is not socially fulfilled outside of work, will behave more like a person with Hnaf. *They will be more involved in extracurricular company activities and workplace committees, and will desire and have more friendships at work than their fulfilled Lnaf counterparts. These numbers will be more similar to the Hnaf subjects.*
3. *Those who report being socially fulfilled outside of work will have lower motivation, satisfaction and job performance due to their lack of social fulfillment at work and lack of desire to create relationships at work.*
4. *Those experiencing emotional overload will be less motivated, less satisfied, and have lower job performance.*
5. *There will be a curvilinear relationship between the level of social fulfillment outside of work and job performance, satisfaction, and motivation, such that those who are very unfulfilled or overloaded will show lower levels than those who are in between.*

Method

Materials: A survey was used to gather responses to questions that would reveal if the hypotheses were supported by the collected data. The survey was generated through Google Documents and was then distributed through email. Need for affiliation and sociability were measured using existing tests and scales (Steers 251-266, Mount). The rest of the survey questions were developed so as to measure the support of each hypothesis. The survey can be found in Appendix A. The results were then gathered in excel and formatted numerically.

Subjects: The participants in this survey were 89 full-time workers. Working friends and family of the researcher were emailed the survey and then asked to send it to their fulltime working friends and family. Subjects were thereby gained at random through this “snowball effect” process. As a general audience was most desirable for this thesis, no demographics or industries were required to participate in this survey and all responses that came from full-time workers were considered.

Results

Design and Data Analysis: Using the aforementioned need for affiliation and sociability scales, participants were categorized as having high or low Naf and high or low sociability using a median split. The Naf scores ranged from -2 to 3. Subjects whose Naf score was equal to or above the median ($Md=1$) were noted as having a high need for affiliation ($n=1$). Those below the median split were noted as having a low need for affiliation ($n=0$). The mean score for the HNaf group was 1.59 ($SD=.72$) with a range of 1 to 3. The mean score for the LNaf group was -0.5 ($SD=.7$) with a range of -2 to 0.

A median split was also utilized when categorizing participants into high or low sociability groupings. The sociability scores ranged from -10 to 10. Those equal to or above the median split ($Md=7$) were placed in the high sociability category ($n=1$), and those below the median were placed in the low sociability category ($n=0$). The mean score for those with high sociability was 8.73 ($SD=1$) with a range of 7 to 10. The mean score for those with low sociability was 1.51 ($SD=4.1$) with a range of -8 to 6. As the correlation between Naf and sociability was low, $r=.34$, $p<.05$, hypothesis 1 and 2 were tested against each separately.

All responses that were not already on a 5-point scale, were converted into a 5-point scale in order to correctly measure and compare each variable. Please note that the only variables that were not formatted into a 5-point scale were need for affiliation (0,1), sociability (0,1), and the number of friends at work and outside of work, which was left as an open numeric response.

The measurements of performance, motivation, and extracurricular work involvement used two questions each to derive conclusive data from. For performance, a question regarding self-evaluation, as well as a question regarding the subject's last performance evaluation from a supervisor, were posed (see Appendix A). For motivation, the participants were asked to rate their self-motivation, as well as their motivation compared to others at work. For extracurricular work involvement, one question was posed regarding the subject's involvement in company activities such as company picnics or speaker series, whereas the second question referred to their involvement in extracurricular work committees such as a party planning committee or focus group. For each variable, the two measurable questions were grouped and tested for relationship reliability using Cronbach's Alpha. Results were as follows:

Performance: $\alpha=.65$

Motivation: $\alpha=.71$

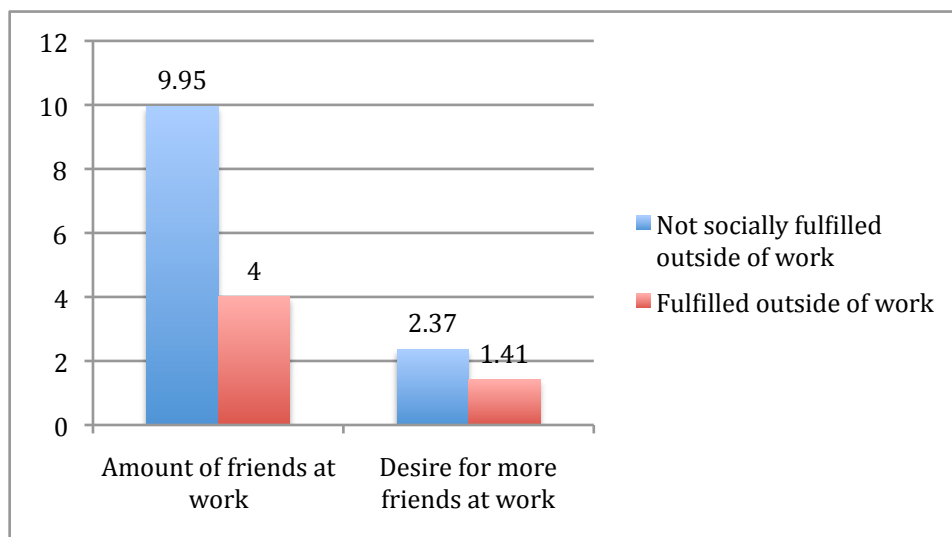
Involvement: $\alpha=.81$

These results were significant enough to allow for the combination of the two questions and their results under each category. The average of the two questions under each category was taken and tested for the hypotheses.

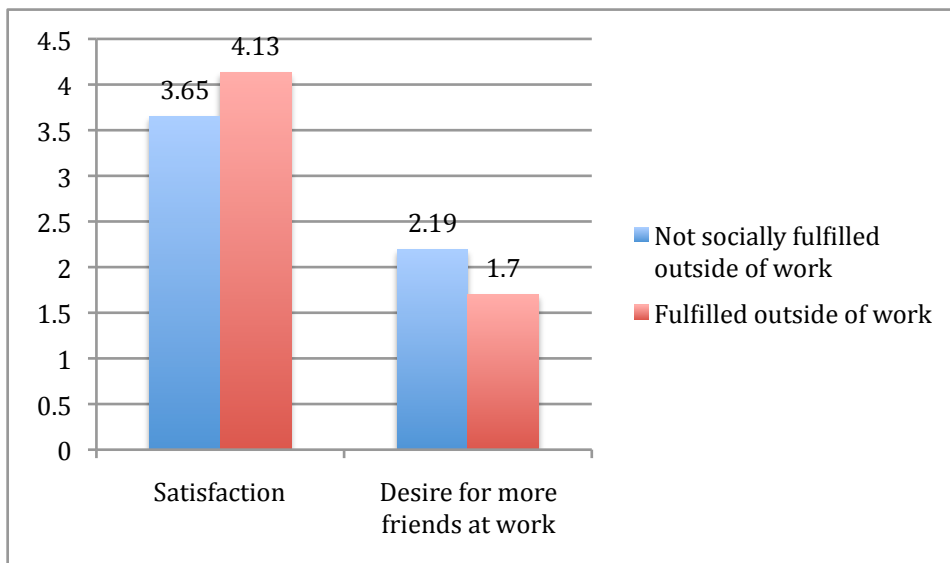
To test Hypothesis 1 and 2, the variables “involvement”, “number of friends at work”, and “desire to have more friends at work” were divided using a median split. Those above the median were assigned a 1, those below a 0. A t-test was used to test these dependent variables and their means against subjects’ need for affiliation first and were then later tested against the subjects’ sociability. The same method was used in testing Hypothesis 3. Hypothesis 4 was tested using Pearson’s correlation model. The correlation between how “emotionally overloaded” a participant felt and how they ranked their job satisfaction, performance and motivation were compared. Finally, Hypothesis 5 was tested using a one way T test to examine the relationship between the variables.

Hypothesis 1: This hypothesis stated that people with a high need for affiliation, who were socially fulfilled outside of work, would take on characteristics of a person with low need for affiliation in that they would be less involved in extracurricular activities, have fewer friends at work, and desire fewer friends at work. Testing these variables against Naf, no significant results were found. Testing these variables against sociability, it was discovered that those with high sociability, who were socially fulfilled outside of work, had fewer friends at work. This finding was marginally significant $t(46)=1.87, p<.10$. See Appendix B, Tables 1, 2, and 3 for data analysis.

Hypothesis 2: This hypothesis stated that people with a low need for affiliation who were not socially fulfilled outside of work would take on characteristics of a person with high need for affiliation in that they would be more involved in extracurricular activities, have more friends at work, and desire more friendships at work. It was found, using Naf, that those with LNaf who were not socially fulfilled outside of work significantly desired more friendships at work $t(34)=3.13$, $p<.05$, as well as had more friends at work, which was marginally significant $t(34)=1.7$, $p<.10$. When these factors were tested against sociability, it was shown that those who had low sociability, but were not socially fulfilled outside of work, desired more friendships at work $t(39)=2.46$, $p<.05$. Data analysis tables can be found in the Appendix B under Tables 4-9. The graph below represents subjects who had a low need for affiliation. As depicted, these counterintuitive traits were attributed to this group of people. Despite the fact that they had a low need for affiliation, they took on traits of a person with a high need for affiliation-they had, and desired more friends at work-because they were not socially fulfilled outside of work.

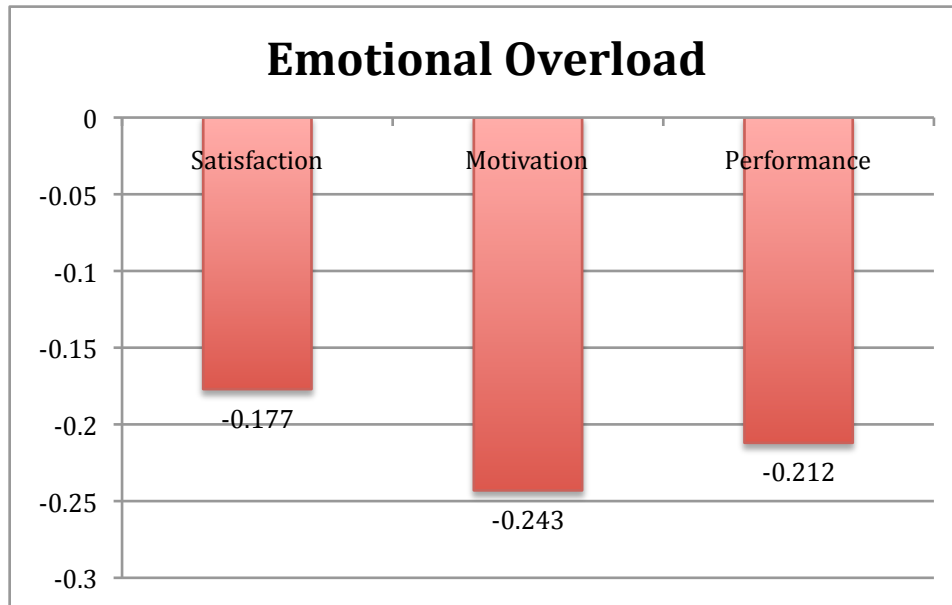


Hypothesis 3: This hypothesis stated that those who were socially fulfilled outside of work would have and desire fewer friendships at work, thus creating lower motivation, satisfaction and performance in the workplace. Significantly supporting this prediction, was the fact that those who are socially fulfilled outside of work desire less friendships at work $t(87)=2.47, p<.05$. Factors having an impact on motivation, satisfaction, and job performance were not supported; however, significantly supported was the opposite of one side of this hypothesis. Those who were socially fulfilled outside of work had higher job satisfaction than those who were not socially fulfilled outside of work $t(87)=-2.47, p<.05$. See Appendix B, Tables 10-12 for data analysis.



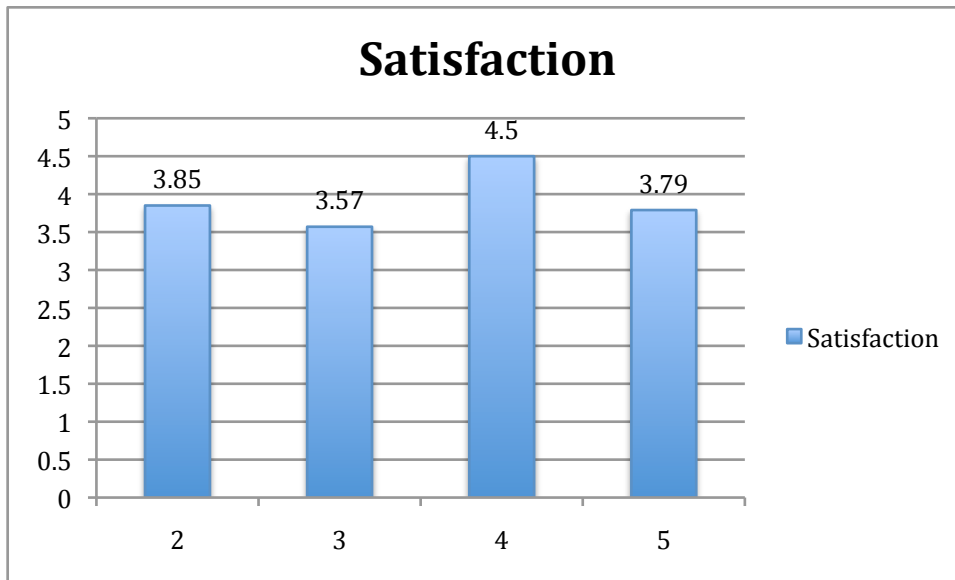
Hypothesis 4: This hypothesis stated that those who reported feeling “emotionally overloaded” by the number of relationships in their life were likely to have lower motivation, satisfaction, and performance at work. The factors tested were all found to be negatively correlated, such that the more emotionally overloaded a person felt, the less

motivated and satisfied they were with their job and the worse they performed. It was found that those who felt emotionally overloaded had lower motivation, $r = -.24, p < .05$, and job performance $r = -.21, p < .05$, and marginally, lower satisfaction $r = -.18, p < .10$. Data tables for these analyses can be found in Appendix B in Tables 13-14.



Hypothesis 5: This hypothesis stated that there would be a curvilinear relationship between the level of social fulfillment outside of work and a person's motivation, satisfaction and performance at work. While there was no significant relationship between social fulfillment outside of work and motivation, $F_{.317} = .502, n.s.$, or performance, $F_{.322} = .958, n.s.$, there was a significant curvilinear relationship between the level of social fulfillment outside of work and job satisfaction, $F_{3.85} = 4.93, p < .05$. See Appendix B, Tables 15-17 for data analysis. The graph below depicts that those with a social fulfillment level of 4 are the most satisfied at work, with its neighbors, 3 and 5, being lower, and the exception of 2 being higher. This

graph supports the fact that those who are neither fully socially fulfilled, or overloaded, nor those who are completely lacking social fulfillment outside of work have the highest level of job satisfaction.



Summary of Findings:

Hypothesis 1		
	Hnaf fulfilled outside of work will be less involved in extracurricular work activities	Not Supported
	Hnaf fulfilled outside of work will desire less friendships at work	Not Supported
	Hnaf fulfilled outside of work will have less friends at work	Supported
Hypothesis 2		
	Lnaf not socially fulfilled outside of work will be more involved in extracurricular work activities	Not Supported
	Lnaf not socially fulfilled outside of work will desire more friendships at work	Supported
	Lnaf not socially fulfilled outside of work will have more friendships at	Marginally Supported

	work	
Hypothesis 3	Those who are socially fulfilled outside of work will be less motivated at work	Not Supported
	Those who are socially fulfilled outside of work will be less satisfied at work	Not Supported
	Those who are socially fulfilled outside of work will have lower job performance	Not Supported
	Those who are socially fulfilled outside of work will desire less friendships at work	Supported
Hypothesis 4		
	Those who feel emotionally overloaded have lower motivation at work	Supported
	Those who feel emotionally overloaded have lower satisfaction at work	Marginally Supported
	Those who feel emotionally overloaded have lower job performance	Supported
Hypothesis 5	There will be a curvilinear relationship between the level of social fulfillment outside of work and job performance	Not Supported
	There will be a curvilinear relationship between the level of social fulfillment outside of work and satisfaction	Supported
	There will be a curvilinear relationship between the level of social fulfillment outside of work and motivation	Not Supported

Conclusion

The results of this study generated support for the theory that people may act outside of their social stereotypes depending on their individual social fulfillment. It was seen that people with a high need for sociability may have less friends at work if they are already socially fulfilled outside of work. It was also seen that the people with a low need for affiliation, who can often be shy or introverted and often satisfied with fewer friendships, may actually desire and have more friendships at work than their socially fulfilled Lnaf counterparts and even more than people with a Hnaf who are socially fulfilled outside of work.

It is important to note that, according to this research, no matter what desire for affiliation a person has, if they are socially fulfilled outside of work, on average, they will desire less friendships at work than someone who is not socially fulfilled outside of work. Also, those feeling emotionally overloaded by the number of relationships in their life are less motivated, satisfied and perform worse at work. Finally, it is seen that those with a balance of social fulfillment outside of work are the most satisfied at work.

Implications

Some implications that are important for businesses to note from this research include the importance of work-life balance. It is supported that the most satisfied group of individuals with their job are those who are socially fulfilled outside of work at the level of “4” on a scale of 1-5. In order for employees to be satisfied, they need to have appropriate means and time to fulfill a certain amount of social needs outside of work. Based on this research, managers should foster a collaborative environment that

encourages a healthy number of working relationships. Team building exercises, group activities, and other efforts may establish opportunities for relationship building at work. Managers should also create jobs that keep employees productive so that employees do not have an excess amount of time to create relationships and then become emotionally overloaded. It is also important for managers and organizations, as mentioned above, to encourage an active lifestyle outside of work that fosters relationships. Employees that have a balanced social life are more likely to be satisfied.

For individuals, it is important to realize from previous research that having friends at work can promote a higher level of satisfaction, motivation, and job performance. Taking into account the findings of this research, those who are socially fulfilled outside of work have less friends at work and desire less friendships. Therefore, it is important not to get emotionally overloaded with out-of-work relationships, leaving no room for relationships at work to be desired or fostered. It is important to maintain a balance and attempt to build relationships both outside of work and at work without becoming emotionally overloaded.

Limitations

This study was limited in its ability to measure certain behavioral aspects and draw conclusions. One natural limitation was that the survey predominately looked at correlational relationships and did not experimentally manipulate variables such as emotional overload. Because the correlation between Naf and sociability was so low, this also limited the ability to analyze subjects' characteristics. Because they did not correlate they had to be tested against variables separately, weakening its use. A possible

explanation of this is that the Naf questions were directed at work situations and the sociability questions were directed at out-of-work situations. The survey also did not take into account demographics or varying industries or job positions. This limits the ability to discern the impact these factors might have on subjects' responses. Finally, the measures of performance and motivation were limited to self-analysis in which self-serving bias can play a role. People may have over-estimated their actual job performance and motivation.

Future Research Implications

Many of the limitations mentioned above should be taken into consideration in future research of this topic. Future research should find a more stable means of measuring need for affiliation and sociability that are more closely correlated. An interesting topic would be to research if a person's need for affiliation and sociability differ from work to outside of work, and also look at variables like "emotional overload" and whether that feeling is generated from work relationships or relationships outside of work. These would have significant implications for the research completed in this study.

Further research should explore performance, motivation, and involvement factors from an outside perspective instead of from self-analysis. For example, rather than asking subjects to self-report their work performance, supervisors of subjects could be asked to provide this information. This would eliminate self-serving bias and would generate more accurate measures of those variables. Further research should also explore the effects of demographics, such as gender and age, on subjects' responses. Another factor to explore would be the impact of different industries and job positions on the variables measured in

this study. Finally, future research should attempt to explore these findings in an experimental setting rather than pure survey research. This could possibly generate more information about causality.

This study supports a new set of unexplored data. Future studies should delve into this fascinating arena of learning in order to understand what drives social interaction and work variables even further. It is possible that many important implications can be derived from understanding social needs fulfillment and how it can play into the organization of businesses' and individuals' social structure.

Humans have distinct needs that motivate and mold behavior. Fulfillment of these needs may significantly change a person's ideals, thoughts, and motivation factors. This study, specifically exploring humans' social needs, showed us that fulfillment in one area of a person's life, may impact how they behave in another area of their life. This study shows us that we should never underestimate the relationships in our lives and their impact on our behavior. While this study has limitations, it also opens a new door of research for those who are interested in exploring it further. If we are able to understand more about human behavior, businesses and employees may be able to utilize that information to create an environment and lifestyle that promotes higher levels of satisfaction and success.

Appendix A

Survey

If you work full-time you are eligible to take this survey. Before taking this survey, please note that all results will be used anonymously and solely for the purpose of academic research. Your valuable feedback is greatly appreciated.

* Required

Please read the 10 statements found below and indicate whether you agree with the statement, disagree, or if you do not know

I like to initiate conversations with strangers *

Agree
Don't Know
Disagree

I like to swap stories and jokes at parties *

Agree
Don't Know
Disagree

I do not like to be with an enthusiastic, loud crowd *

Agree
Don't Know
Disagree

Meeting new people is enjoyable to me *

Agree
Don't Know
Disagree

I do not like to express my opinion to others *

Agree
Don't Know
Disagree

I find it easy to make new friends *

Agree

Don't Know
Disagree

I am very sociable *

Agree
Don't Know
Disagree

I am not very outspoken in most groups I belong to *

Agree
Don't Know
Disagree

At parties I am very talkative and thoroughly enjoy them *

Agree
Don't Know
Disagree

I tend to be somewhat shy *

Agree
Don't Know
Disagree

For the following 5 statements, please check all those you agree with *

When I have a choice, I try to work in a group instead of by myself
I pay a good deal of attention to the feelings of others at work
I prefer to do my own work and let others do theirs
I express my disagreements with others openly
I find myself talking to those around me about non-business related matters

In the context of the following questions please keep in mind that “friend” means someone you have a close and constant relationship with. This does not include acquaintances or people you frequently see and casually talk to, but those individuals you share a meaningful relationship with.

How many friends do you have outside of work? (Please use Arabic Numerals only)

*

On a scale of 1-5, do you wish you had more friends outside of work? *

1	2	3	4	5	
Not at all					Very much

On a scale of 1-5, how much do you feel that you fulfill your need for social interaction outside of work? *

1	2	3	4	5	
Not at all					Always

How many friends do you have at work? (Please use Arabic Numerals only) *

On a scale of 1-5, do you wish you had more friends at work? *

1	2	3	4	5	
Not at all					Very Much

On a scale of 1-5, how much do you feel that you fulfill your need for social interaction at work? *

1	2	3	4	5	
Not at all					Always

How many friendships do you believe is the ideal number at work? (Please use Arabic Numerals only) *

How many friendships do you believe is the ideal number outside of work? (Please use Arabic Numerals only) *

Typically, where do you meet your friends? *

- Mostly at work
- Both at work and outside of work
- Mostly outside of work

Compared to other people, how many friends do you have at work? *

- Many fewer
- Somewhat fewer
- About the same
- Somewhat more
- Many more

Compared to other people, how many friends do you have outside of work? *

- Many fewer
- Somewhat fewer
- About the same
- Somewhat more
- Many more

Do you ever feel emotionally overloaded due to the number of relationships in your life? *

- Never
- Occasionally
- Sometimes
- Often
- Very Often

Please answer the following questions related to your job

On a scale of 1-5, how satisfied are you with your job? *

1	2	3	4	5
Very Dissatisfied				Very Satisfied

On a scale of 1-5, how motivated are you to perform at work? *

1	2	3	4	5
Not motivated at all				Very motivated

How do you think your motivation at work compares to your coworkers? *

- I am much less motivated
- I am somewhat less motivated
- I am equally motivated
- I am somewhat more motivated
- I am much more motivated

Based on your last performance review, or feedback from your supervisor, please rate your job performance on a scale from 1-5 (5 being superior job performance) *

1	2	3	4	5
---	---	---	---	---

How would you rate your job performance on a scale of 1- 5 (5 being superior job

performance) *

1 2 3 4 5

How often do you participate in “extra” work activities that aren’t required for your position? (Ex: company picnics, special speaker series, etc) *

Never
Rarely
Occasionally
Frequently
Always

How often do you participate in workplace committees or teams, other than those involved in your primary job duties? (Ex: Party planning committee, focus groups, quality control circles, community service, etc) *

Never
Rarely
Occasionally
Frequently
Always

Appendix B

Table 1

Group Statistics^a

	fulfill outside of work	N	Mean	Std. Deviation	Std. Error Mean
involv	.00	21	3.0476	.82013	.17897
	1.00	27	3.3148	1.06652	.20525
On a scale of 1-5, do you wish you had more friends at work?	.00	21	2.29	.902	.197
	1.00	27	1.93	.917	.176
How many friends do you have at work?	.00	21	11.38	13.919	3.037
	1.00	27	5.70	6.568	1.264

a. High or Low Sociability = 1

Table 2

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
involv	Equal variances assumed	2.186	.146	-.950
	Equal variances not assumed			-.981
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	.024	.878	1.358
	Equal variances not assumed			1.361
How many friends do you have at work?	Equal variances assumed	7.619	.008	1.872
	Equal variances not assumed			1.726

a. High or Low Sociability = 1

Table 3

Independent Samples Test^a

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
involv	Equal variances assumed	46	.347	-.26720
	Equal variances not assumed	45.998	.332	-.26720
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	46	.181	.360
	Equal variances not assumed	43.457	.181	.360
How many friends do you have at work?	Equal variances assumed	46	.068	5.677
	Equal variances not assumed	26.906	.096	5.677

a. High or Low Sociability = 1

Table 4

Group Statistics^a

	fulfill outside of work	N	Mean	Std. Deviation	Std. Error Mean
involv	.00	19	3.0789	.83771	.19218
	1.00	17	2.8235	.98332	.23849
On a scale of 1-5, do you wish you had more friends at work?	.00	19	2.37	1.012	.232
	1.00	17	1.41	.795	.193
How many friends do you have at work?	.00	19	9.95	14.097	3.234
	1.00	17	4.00	3.041	.738

a. High or Low Naf = 0

Table 5

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
involv	Equal variances assumed	.488	.490	.842
	Equal variances not assumed			.834
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	3.202	.082	3.128
	Equal variances not assumed			3.170
How many friends do you have at work?	Equal variances assumed	7.912	.008	1.702
	Equal variances not assumed			1.793

a. High or Low Naf = 0

Table 6

Independent Samples Test^a

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
involv	Equal variances assumed	34	.406	.25542
	Equal variances not assumed	31.660	.411	.25542
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	34	.004	.957
	Equal variances not assumed	33.482	.003	.957
How many friends do you have at work?	Equal variances assumed	34	.098	5.947
	Equal variances not assumed	19.861	.088	5.947

a. High or Low Naf = 0

Table 7

Group Statistics^a

	fulfill outside of work	N	Mean	Std. Deviation	Std. Error Mean
involv	.00	22	3.1136	.96278	.20527
	1.00	19	2.9211	.85413	.19595
On a scale of 1-5, do you wish you had more friends at work?	.00	22	2.09	1.109	.236
	1.00	19	1.37	.684	.157
How many friends do you have at work?	.00	22	4.09	3.728	.795
	1.00	19	4.42	3.097	.710

a. High or Low Sociability = 0

Table 8

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
		involv	Equal variances assumed	.546
	Equal variances not assumed			.679
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	13.724	.001	2.462
	Equal variances not assumed			2.546
How many friends do you have at work?	Equal variances assumed	.028	.869	-.305
	Equal variances not assumed			-.310

a. High or Low Sociability = 0

Table 9

Independent Samples Test^a

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
involv	Equal variances assumed	39	.505	.19258
	Equal variances not assumed	38.964	.501	.19258
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	39	.018	.722
	Equal variances not assumed	35.534	.015	.722
How many friends do you have at work?	Equal variances assumed	39	.762	-.330
	Equal variances not assumed	38.953	.758	-.330

a. High or Low Sociability = 0

Table 10

Group Statistics

	fulfill outside of work	N	Mean	Std. Deviation	Std. Error Mean
motiv	.00	43	3.9419	.70887	.10810
	1.00	46	3.9783	.86253	.12717
perform	.00	43	4.2326	.60108	.09166
	1.00	46	4.2391	.56509	.08332
On a scale of 1-5, how satisfied are you with your job?	.00	43	3.65	1.021	.156
	1.00	46	4.13	.806	.119
On a scale of 1-5, do you wish you had more friends at work?	.00	43	2.19	1.006	.153
	1.00	46	1.70	.866	.128

Table 11

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
		motiv	Equal variances assumed	.427
	Equal variances not assumed			-.218
perform	Equal variances assumed	.036	.849	-.053
	Equal variances not assumed			-.053
On a scale of 1-5, how satisfied are you with your job?	Equal variances assumed	4.702	.033	-2.467
	Equal variances not assumed			-2.447
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	2.485	.119	2.469
	Equal variances not assumed			2.457

Table 12

Independent Samples Test

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
		motiv	Equal variances assumed	87
	Equal variances not assumed	85.626	.828	-.03640
perform	Equal variances assumed	87	.958	-.00657
	Equal variances not assumed	85.560	.958	-.00657
On a scale of 1-5, how satisfied are you with your job?	Equal variances assumed	87	.016	-.479
	Equal variances not assumed	79.880	.017	-.479
On a scale of 1-5, do you wish you had more friends at work?	Equal variances assumed	87	.015	.490
	Equal variances not assumed	83.110	.016	.490

Table 13

Descriptive Statistics

	Mean	Std. Deviation	N
Do you ever feel emotionally overloaded due to the number of relationships in your life?	2.01	.947	89
On a scale of 1-5, how satisfied are you with your job?	3.90	.942	89
motiv	3.9607	.78778	89
perform	4.2360	.57943	89

Table 14

Correlations

		Do you ever feel emotionally overloaded due to the number of relationships in your life?	On a scale of 1-5, how satisfied are you with your job?	motiv	perform
Do you ever feel emotionally overloaded due to the number of relationships in your life?	Pearson Correlation	1	-.177	-.243*	-.212*
	Sig. (2-tailed)		.097	.022	.046
	N	89	89	89	89
On a scale of 1-5, how satisfied are you with your job?	Pearson Correlation	-.177	1	.377**	.190
	Sig. (2-tailed)	.097		.000	.075
	N	89	89	89	89
motiv	Pearson Correlation	-.243*	.377**	1	.357**
	Sig. (2-tailed)	.022	.000		.001
	N	89	89	89	89
perform	Pearson Correlation	-.212*	.190	.357**	1
	Sig. (2-tailed)	.046	.075	.001	
	N	89	89	89	89

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

		Do you ever feel emotionally overloaded due to the number of relationships in your life?	On a scale of 1-5, how satisfied are you with your job?	motiv	perform
Do you ever feel emotionally overloaded due to the number of relationships in your life?	Pearson Correlation	1	-.177	-.243*	-.212*
	Sig. (2-tailed)		.097	.022	.046
	N	89	89	89	89
On a scale of 1-5, how satisfied are you with your job?	Pearson Correlation	-.177	1	.377**	.190
	Sig. (2-tailed)	.097		.000	.075
	N	89	89	89	89
motiv	Pearson Correlation	-.243*	.377**	1	.357**
	Sig. (2-tailed)	.022	.000		.001
	N	89	89	89	89
perform	Pearson Correlation	-.212*	.190	.357**	1
	Sig. (2-tailed)	.046	.075	.001	
	N	89	89	89	89

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Table 15

Descriptives

		N	Mean	Std. Deviation	Std. Error
On a scale of 1-5, how satisfied are you with your job?	2	13	3.85	1.068	.296
	3	30	3.57	1.006	.184
	4	22	4.50	.598	.127
	5	24	3.79	.833	.170
	Total	89	3.90	.942	.100
perform	2	13	4.0385	.43116	.11958

	3	30	4.3167	.64971	.11862
	4	22	4.3182	.39477	.08417
	5	24	4.1667	.68630	.14009
	Total	89	4.2360	.57943	.06142
motiv	2	13	4.1538	.55470	.15385
	3	30	3.8500	.75601	.13803
	4	22	4.0227	.91907	.19595
	5	24	3.9375	.82505	.16841
	Total	89	3.9607	.78778	.08350

Table 16

ANOVA

		Sum of Squares	df	Mean Square
On a scale of 1-5, how satisfied are you with your job?	Between Groups	11.573	3	3.858
	Within Groups	66.517	85	.783
	Total	78.090	88	
perform	Between Groups	.966	3	.322
	Within Groups	28.578	85	.336
	Total	29.545	88	
motiv	Between Groups	.950	3	.317
	Within Groups	53.662	85	.631
	Total	54.612	88	

Table 17

ANOVA

		F	Sig.
On a scale of 1-5, how satisfied are you with your job?	Between Groups	4.929	.003
perform	Between Groups	.958	.416
motiv	Between Groups	.502	.682

Works Cited

- Alderfer, C.P. "An Empirical Test of a New Theory of Human Needs" *Organizational Behavior and Human Performance*. 4 (1969): 142-175.
- Aristotle. *The Nicomachean Ethics of Aristotle*. Trans. Browne, R.W.
London: George Bell and Sons, 1889.
- Bradley, Alyson. "Emotional Chaos, Sensory Issues Overloaded, Shutdown." *Aspergers Parallel Planet*. October 2009. AF Bradely, Web. 21 Dec 2009.<http://asplanet.info/index.php?option=com_content&task=view&id=66&Itemid=110>.
- Greguras, Gary, and James Diefendorff. "Different Fits Satisfy Different Needs: Linking Person-Environment Fit to Employee Commitment and Performance Using Self-Determination Theory." *Journal of Applied Psychology*. 94.2 (2009): 465-477.
- Klein, James, and Doris Pridemore. "Effects of Cooperative Learning and Need for Affiliation on Performance, Time on Task, and Satisfaction." *Educational Technology Research and Development*. 40.4 (1992): 39-47.
- Maslow, A.H. "A Theory of Human Motivation." *Psychological Review*. 50. (1943): 370-396.
- McMillan, David W., and David M. Chavis. "Sense of Community: A Definition and Theory." *Journal of Community Psychology*. 14.1 (1986): 6-23.
- Mount, M. K., & Barrick, M. R. (1994). Personal Characteristics Inventory. Wonderlic.
- Rath, Tom. *Vital Friends*. New York: Gallup Press, 2006.

- Robbins, Stephen P., and Timothy A. Judge. *Organizational Behavior*. Upper Sadle River, NJ: Pearson, 2007.
- Royal, Mark A., and Robert J. Rossi. "Individual-Level Correlates of Sense of Community: Findings from Workplace and School." *Journal of Community Psychology*. 24.4 (1996): 395-416.
- Snyder, C.R, and Shane Lopez. *Positive Psychology: The Scientific and Practical Explorations of Human Strengths* . Thousand Oaks: Sage Publications, 2007.
- Sarason, S.B. *The Psychological Sense of Community: Prospects for a Community Psychology*. San Francisco: Jossey-Bass, 1974.
- Stahl, Michael J. *Managerial and Technical Motivation: Assessing Needs for Achievement, Power, and Affiliation*. New York: Praeger Publishers, 1986.
- Steers, R.M. & Braunstein, D.N. (1976). A behaviorally-based measure of manifest needs in work settings. *Journal of Vocational Behavior*, 9, 251-266.
- WBA Market Research. "2008 Sleep in America Poll." *National Sleep Foundation*, 3 March 2008. Web. 22 February 2010.
- <<http://www.sleepfoundation.org/sites/default/files/2008%20POLL%20SOF.PDF>>