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Privacy, Group Functioning, and Residential Satisfaction in a College Dormitory

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Abstract

The purpose of this study was to investigate the relationships between privacy regulation, privacy experiences, group functioning, and residential satisfaction in an apartment-style college dormitory. The participants, 122 undergraduate students living in on-campus apartments, completed an online survey about their residential experiences. Major findings included significant positive correlations between ease of getting together with roommates, positive privacy experiences, and having more functional group interactions with roommates. There were also relationships between ease of getting away from roommates, negative privacy experiences, and group dysfunction. Finally, there were significant correlations between ease of controlling privacy, positive privacy experiences, group functioning, and residential satisfaction. These findings, and research in this area, may help increase understanding of privacy processes and may help colleges and university enhance student residential life.

Privacy, Group Function, and Residential Satisfaction in a College Dormitory

Dormitory living may involve social challenges of getting together with roommates and getting away from roommates. This process is known as privacy regulation (Altman 1975). Privacy regulation is achieved through behaviors, or "mechanisms" that, when used effectively, should result in desired levels of social contact. When students can successfully navigate these challenges, living groups have fewer conflicts and more rewarding interactions (Harris et al., 1996, Miller et al., 1981, Pittman and Lloyd 1988), resulting in more effective group functioning. In turn, successful privacy regulation and enhanced group functioning should result in greater satisfaction for roommates and the dormitory (Bell at al., 2000, Altman and Haythorn, 1967).

The purpose of this study was to investigate the relationship between privacy regulation, group functioning, and residential satisfaction in an apartment-style college dormitory. Before elaborating on my research questions in more detail, I will discuss the literature on privacy regulation, group functioning, and residential satisfaction.

Privacy Regulation

According to Altman (1975), privacy is defined as "an interpersonal boundary-control process, which paces and regulates interaction with others" (p. 10). Privacy is an optimizing process in that in any given situation, people have a desired level of contact and a perceived level of contact. When these two things are not in balance, people engage in "privacy regulation mechanisms," a set of actions intended to bring achieved and desired levels of contact into balance. According to Altman (Altman, 1975; Altman & Chemers, 1980), when perceived contact exceeds desired contact, people experience crowding, and when perceived contact is less than desired contact, people experience loneliness. When there is a match between desired and perceived privacy, people may experience a positive sense of solitude (when desired contact is low) or connection (when desired contact is high).

Privacy is important for developing self-identity, autonomy, self-esteem, and self-worth, achieving social viability, and maintaining well-being (Weigel-Garrey et al., 1998, Zeegers et al., 1994, Altman & Chemers, 1980). In part, this is because privacy regulation serves both social interaction and identity functions (Altman, 1975). For social interaction functions, privacy regulation allows individuals to get together with people or away from people depending on their preferences. For identity functions, people who experience control of privacy may be more comfortable in social situations. Also, environmental control over privacy allows people to personalize their spaces and objects (e.g., home, work, car, etc.), displaying their distinctiveness from, and commonalities with, those around them; this further enables people to explore and express their identity (Altman & Chemers 1980). In addition, control of privacy influences self-disclosure, which is the verbal transmission of personal information; self-disclosure in turn affects how we identify ourselves in relation to others (Derlega & Chaikin, 1977).

People regulate privacy using a variety of behaviors that include verbal, nonverbal, and environmental mechanisms (Altman, 1975). Verbal mechanisms may involve directly telling others you want more or less contact, or it may be more subtle, such as using volume or tone of voice. Nonverbal mechanisms include various forms of body language, such as posture, facial expressions, gestures, head movements, and so on; it also includes personal space, the invisible bubble around a person, and intrusion in this space causes tension and discomfort. Lastly, environmental mechanisms can include leaving the situation or utilizing territorial behaviors.

Human territoriality refers to the ownership or control over an object, place, or geographical area of any shape or size (Altman & Chemers, 1980). Altman (1975) proposed three types of territory, primary, secondary, and public, which differ in terms of duration of occupancy and how central the territory is to everyday life. Primary territories are places like a home or bedroom, which are central and important to an individual's life. These are often places

where the individual has high levels of privacy control (Altman & Chemers, 1980). Secondary territories are places like a neighborhood, apartment building, or workplace (Brown, 1987). They are a mix of public and private places and often involve group-shared rather than individually held control over privacy (Altman & Chemers, 1980). Lastly, public territories are just that: public. Tables in a cafeteria, seats at the library, or benches in a park are all examples of public territories (Altman, 1975). People use their territories as social settings where they increase contact or retreat to their territories as a way of avoiding interaction with others (Brown, 1987).

Within the context of a dormitory apartment unit, rooms may constitute primary territories, common living rooms and kitchen areas may be secondary territories, and common areas of the building may be public territories. These territories can provide students with sense of security and identity, and physical ways of regulating privacy (Altman, 1975, Kaya & Weber, 2003b). Some territories allow more privacy control than others, with higher control territories promoting a sense self-efficacy and greater levels of place satisfaction (Brown, 1987).

Environmental design may enhance or interfere with privacy regulation depending on the layout and location of rooms, doors, barriers, etc. Demibras and Demirkan (2000) conducted a case study of an art studio and found that the organization of tables within the room affected student satisfaction. Certain controllable environmental attributes, such as movable partition walls, enabled students to regulate privacy and gain greater satisfaction. In a similar study of a workplace for engineers, Kupritz (1998) found that a broad range of design variables are perceived as useful for regulating privacy. Most notably, enclosed workspaces, high partitions, floor to ceiling solid walls, doors, and workspaces located away from the flow of traffic were considered important privacy regulators. McCarthy and Saegert (1979) compared perceptions of privacy between tenants in high-rise and low-rise buildings. They found that tenants in the high-rise building felt a weaker sense of control and privacy than tenants in the low-rise building.

Environmental design also impacts privacy and perceived crowding in college dormitories. Baum and Valins (1977) found that college residents living in suite style dorms perceived their residence hall as less crowded than those living in corridor style dorms. Huang (2000) found that residents with central community bathrooms felt the most crowded, compared to separated bathrooms and suite-style bathrooms; those with suite-style bathrooms felt the least crowded. In addition, residents living closer to the center felt more crowded than those living in the wings of the building.

Privacy and Group Functioning

In dormitory living, functional groups should be characterized by mutual respect, good communication, positive social interactions, and low levels of conflict. Altman (1975) proposed that effective privacy regulation is related to group functioning, and several studies have supported this assertion. For example, Pittman and Lloyd (1988) found that the ability to regulate privacy was related to marital, parental, and life satisfaction. In a study of pairs of Navy recruits living in isolation, Altman and Haythorn (1967) found that dyads functioned better when establishing territories early, enabling them to better regulate privacy. Finally, in a study of families living in university apartments, Harris et al. (1996) found correlations between the ability to effectively regulate privacy and greater perceived family functioning.

The effects of privacy on group functioning are also supported by a large body of work on crowding. This research indicates that living in high density settings relates to decreases in group functioning. This is relevant because experiences of crowding result from inability to regulate privacy – that is, when perceived contact exceeds desired contact (Altman, 1975; Altman & Chemers, 1980; Brown, 1987). For example, McCarthy and Saegert (1979) found that tenants in a high-rise building, who felt a weaker sense of control and less privacy, had more difficulty with social relationships. Similarly, Evans et al. (1996) found that people in crowded

homes had greater psychological distress than those in uncrowded homes.

Several crowding studies have looked specifically at dormitories. For example, Miller et al. (1981) surveyed residents in high- and low-density dormitories and found that residents in the low-density dorms reported higher levels of social interaction. Likewise, Nadler et al. (1982) found that low-density dorms facilitated better interpersonal interactions. Baum and Davis (1980), studying the experience of crowding in long and short corridor dormitories, found that residents who experienced more crowding also experienced more social problems with fellow residents. These problems included unpredictable interactions, lack of group formation, and struggles to develop friendships. Baum and Valins (1977) also found that, compared to their low-density counterparts, residents of the high-density dormitories were less willing to communicate with strangers in their dormitory and more frequently had unpleasant interactions with others. Similarly, Baum et al. (1978) found that density and lack of perceived control long-corridor dormitories resulted in participants developing symptoms of learned helplessness, a condition in which people feel powerless due to persistent failure to accomplish desired goals.

Privacy and Residential Satisfaction

Place attachment may be defined as an affective bond or link between people and specific places (Hidalgo & Hernandez, 2001) or as a cognitive-emotional bond that individuals experience with a specific place (Gifford, 2014). In contrast, residential satisfaction is defined as the judgment that an environment as meeting the needs of the individual (Casakin & Reizer, 2017). Guiliani (2003) explains that satisfaction contributes to attachment, but that attachment is a comprehensive measure, superordinate, and enduring. Attachment and satisfaction are similar but separate measures. Although the literature on privacy mostly relates to place attachment, with regard to college dormitories, which are temporary residences, place satisfaction is probably a more appropriate term.

Privacy relates to place attachment/satisfaction in that people may have more positive feelings about residences that facilitate privacy regulation as opposed to those that do not (Bell et al., 2000, Brown, 1987, Gifford, 2014). Several studies have supported the link between privacy and satisfaction in college housing. For example, Harris et al. (1996), studying families living in university apartments, found that those who indicated a greater ability to regulate privacy also indicated greater attachment to their apartments. In a different study of university apartments, Harris et al. (1995) found that, among both Asian and American families, effective privacy regulation was related to place attachment.

Several studies have also related high density living to lower residential satisfaction. For example, McCarthy and Saegert (1979) found that tenants in a high-rise building who felt a weaker sense of control and less privacy were less satisfied with their building. Similar findings were found by Miller et al. (1981) who surveyed residents in high- and low-density dormitories; residents of high-density dorms reported less place satisfaction. Finally, Amole (2009) found lower residential satisfaction among students in high density housing in Nigeria.

College dormitories include important primary and secondary territories in a student's campus life, so it is especially important for students to be capable of adequately regulating privacy. Kaya and Weber (2003a) studied American and Turkish college freshmen living in residence halls and found that those able to adequately regulate their privacy displayed better adjustment to college life. Vinsel et al. (1980) studied the relationship between privacy regulation, personal displays in dormitory rooms, and college adjustment, and found that students who had access to and used more privacy mechanisms were more satisfied with university life, had better college adjustment, and were less likely to drop out. Based on previous research, it follows that students able to regulate their privacy are more likely to be satisfied with their environment and have better relationships with their roommates.

Residential satisfaction is important in college housing. Research supports a relationship between positive perceptions of living places and personal well-being (Rollero & de Piccoli, 2010). In addition, "favorite places," or primary territories, have restorative properties and decrease stress (Korpela et al., 2001). Restorative experiences aid with positive mood change, attention capacity recovery, and contemplation of the self. People are more likely to develop attachment to places that continually provide those restorative experiences. In addition, place attachment contributes to quality of life (Harris et al., 1996), life satisfaction (Billig et al., 2006), and social well-being (Rollero & de Piccoli, 2010). Scanelli and Gifford (2017) identify the most common benefits of place attachment as memory support, sense of belonging, and stress-relief/relaxation. Other common benefits were positive emotions, comfort security, and personal growth. On the negative side, frequent relocation, or attachment disruption, among other factors, can lead to health problems (Stokols et al., 1983).

Research Questions

The goal of this study was to investigate the relationship among privacy, group functioning, and residential satisfaction among college students living in four-person apartments in a suite-style dormitory. Specifically, the study will investigate the following questions:

1. What privacy regulation mechanisms do residents use to increase and decrease contact with roommates, and does using these mechanisms relate to perceived privacy control and privacy experiences? Based on the literature discussed, I expect that effective privacy mechanisms will relate to resident's feeling of privacy control and positive experiences (e.g., less crowding and loneliness, more connection and solitude).
2. Does the ability to control privacy relate, in meaningful ways, to the experiences of connection, solitude, loneliness, and crowding? Based on the literature discussed, I expect residents who feel they have control over their levels of contact with roommates

will be less likely to experience loneliness and crowding, and more likely to experience a positive sense of solitude and connection.

3. How do privacy control and experiences relate to group functioning among roommates? Based on the literature discussed, I expect residents reporting greater control and positive privacy experiences will also report better functioning among roommates.
4. How do privacy and group functioning relate to residential satisfaction? Based on literature discussed, I expect residents who have a high level of privacy control and positive privacy experiences, along with a functional roommate group, will report greater satisfaction with their living situation.

Method

Participants and Sampling Procedures

Participants who volunteered to for this study included 122 students (86 women, 36 men) between the ages of 19 and 23 (M = 20.61, SD = 0.99) living in an apartment-style dormitory at a small liberal arts college in Florida. Dormitory residents were e-mailed an invitation to participate in the study by the college's Office of Residential Life. Recruiting was also done through resident advisors and fliers left in the apartments. All invitations included a link to a Qualtrics survey. Participation was anonymous, but participants could be directed to a separate survey to enter a raffle for a five gift cards ($50 and under) after completing the survey. Out of 474 of residents e-mailed, 122 completed the survey, a response rate of 26%.

The dormitory for this study consisted of four-person apartments. Most of the units have four private bedrooms and four private bathrooms, and a shared kitchen, living room, and laundry. However, the inside corner units are a little different, with two bedrooms instead of four. The bedrooms in inside corner units house two residents who have their own semi-private personal space; the beds are hidden from each other by a privacy wall.

Measures

Privacy Regulation, Control, and Experiences

Privacy regulation was assessed with eight items asking how often residents engaged in various strategies to get together with roommates (4 items) or away from roommates (4 items) while in the apartment. These items, listed in Tables 2 and 3, used a 5-point response scale: 1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always*. The questions were modified from Harris (1994).

Table 4 contains the three items used to measure perceived control over privacy and the four items used to measure privacy experiences. Control was measured for overall ease of controlling the amount of interaction, ease of getting together with roommates, and ease of getting away from roommates. These three items used a 5-point response scale for ease: 1 = *Not at All*, 2 = *Slightly*, 3 = *Moderately*, 4 = *Fairly*, 5 = *Very*. Privacy experience items asked participants about negative experiences (feeling lonely or crowded) and positive experiences (enjoying connection or solitude). These items used a 5-point response scale: 1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always*. The control and experience questions were modified from Harris (1994).

Group Functioning

Group function was measured using ten items asking residents about the frequency of various experiences with roommates as a group (see Table 1 for item descriptions). Again, items used a 5-point response scale: 1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always*. The questions were modified from Harris (1994). Table 1 presents the results of a principal component analysis using a varimax rotation for these ten items. The analysis yielded two components with eigenvalues greater than 1 accounting for 67.1% of the explained variance. Based on this analysis, the items were averaged to form two scales. Higher scores on the

Functional Group scale (5-items, Cronbach's $\alpha = .91$) indicated that participants believed roommates have fun as a group, enjoy spending time with each other, support each other emotionally, work well as a group, and cooperate with each other. Higher scores on the Dysfunctional Group scale (5-items, Cronbach's $\alpha = .79$) indicated that participants believed roommates argue with each other, engage in "behind the back" negative talk about each other, do not respect each other's privacy, disrespect common areas, and do not effectively communicate when there are issues or conflicts.

Residential Satisfaction

Residential satisfaction was assessed with five items asking residents to rate how satisfied they were with their living situation including their room, apartment, and building, their roommates, and their overall living situation. These items, listed in Table 6, used a 5-point response scale: 1 = *Not at All*, 2 = *Slightly*, 3 = *Moderately*, 4 = *Very*, 5 = *Extremely*. The questions were modified from Huang (2000).

Results

Privacy Regulation Mechanisms

As reported in Table 2, there were four different privacy regulation mechanisms for getting together with roommates: tell your roommates, go to a place, plan a time, and leave apartment. A one-way repeated measures ANOVA on reported use of these strategies found an overall difference between means, $F(1, 363) = 31.91$, $p < .01$, $\eta^2 = .21$. A post hoc comparison of means using a Bonferroni correction indicated that residents reported using "go to a place in your apartment" significantly more than the other three strategies.

Table 2 also contains correlations between *get together* strategies and privacy control and experience items. Use of all four strategies was related to finding it easy to get together with roommates and enjoying that time together (i.e., connection). In addition, residents who told

roommates they wanted to get together, or went to a place in the apartment to be with roommates, also found it easier to control privacy (overall) and were less likely to report wanting less interaction with roommates (i.e., feeling crowded).

Table 3 reports statistics for different privacy regulation mechanisms for getting away from roommates: tell your roommates, go to a place, do something to "send a message," and leave apartment. A one-way repeated measures ANOVA on reported strategy use found an overall difference between means, $F(1, 363) = 80.97$, $p < .01$, $\eta^2 = .40$. A post hoc comparison of means using a Bonferroni correction indicated that residents reported using "tell your roommates that you want to be alone" significantly less than the other three strategies. In contrast, residents reported using "go to a place within your apartment where your roommates are not likely to bother you (i.e., your own room or bed)" significantly more than the other three strategies.

Table 3 also shows correlations between *get away* strategies and privacy control and experience items. Interestingly, none of the privacy mechanism were related to ease of controlling privacy or getting away from roommates. Residents who told their roommates they wanted to be alone were more likely to find it easy to get together with roommates and enjoy connection. Since this was the least used strategy, it may be that students who have positive relationships with roommates are the most likely to use direct communication. Residents who went to a place in their apartment or did something to send a message that they wanted to be alone were more likely to feel crowded and enjoy solitude. There was no significant correlation for residents who left their apartment to be alone.

Privacy Control, Experiences, and Group Functioning

There were three items measuring perceived control over privacy and four items measuring privacy experiences (see Table 4). For the control items, approximately two-thirds of residents reported feeling that it was fairly or very easy to control amount of interaction with

their roommates overall and in terms of getting together and away. For privacy experience items, most ratings were positive with approximately three quarters of residents reporting enjoying their time alone (solitude) and together (connection) often or always. About half the residents reported never or rarely wanting more interaction (i.e., feeling lonely), and about two thirds reported never or rarely wanting less interaction (i.e., feeling crowded).

For the most part, privacy control items related to privacy experience items in predicted ways. For example, as illustrated in Figure 1, ease of getting together with roommates was associated with less experienced loneliness and greater experienced connection to roommates. Ease of getting away from roommates was related to less experienced crowding but, surprisingly, not related to positive experiences of solitude.

Recall that two scales were developed to measure group functioning: Functional Group and Dysfunctional Group. Correlations between privacy items and group functioning items are presented in Table 5. Significant correlations are also organized and presented in a conceptual framework in Figure 1. Correlations with group functioning were also largely in predicted directions (see Figure 1). For control, ease of getting together was related to being a more functional group, while ease of getting away was related to being in a less dysfunctional group. For negative privacy experiences, loneliness was unrelated to group functioning and feeling crowded was related to perceived dysfunctionality within the group of roommates. Enjoying a sense of connection was related to more perceived functionality and less perceived dysfunctionality in roommates. Finally, residents who reported enjoying solitude the most were less likely to perceive their group as functional, and more likely to perceive their group as dysfunctional. This last group may enjoy their solitude because they do not enjoy their group interactions.

Privacy, Group Functioning, and Residential Satisfaction

Five items rated resident satisfaction with their room, apartment, dormitory building, roommates, and overall living situation. Overall, satisfaction was quite high (see Table 6). Two thirds of residents were very or extremely satisfied with roommates, and over three quarters reported being very or extremely satisfied for the other four items. The correlations in Table 6 show that all measures of satisfaction were significantly correlated with each other, except that roommate satisfaction was unrelated to room and building satisfaction.

The last set of correlations, presented in Table 7, relates privacy and group functioning to the five forms of residential satisfaction. Significant correlations are also organized and presented in a conceptual framework in Figure 2, Figure 3, and Figure 4. Figure 2 illustrates relationships with privacy, functioning, and satisfaction with physical spaces (i.e., room, apartment, and building). Room satisfaction was only related to overall control over privacy (not in figure, see Table 7) and the privacy experience of enjoy time on your own away from your roommates (i.e., enjoy solitude). Apartment and building satisfaction were both related to finding it easy to get together with roommates, enjoying connection, and perceiving their roommates as a functional group.

Figure 3 illustrates relationships with privacy, functioning, and satisfaction with roommates. Residents who reported satisfaction with their roommates were more likely to report overall control over privacy (not in figure, see Table 7), finding it easy to get together with their roommates, enjoying connection, and perceiving their roommates as a functional group and not a dysfunctional group. Residents with less satisfaction with roommates were more likely to report experiencing crowding and enjoying solitude.

Finally, Figure 4 illustrates relationships with privacy, functioning, and overall satisfaction with the living situation. Residents with greater overall satisfaction were more likely to report overall control over privacy (not in figure, see Table 7), finding it easy to get together

with their roommates, finding it easy to get away from their roommates, enjoying connection, and perceiving their roommates as a functional group and not a dysfunctional group.

Discussion

My results were largely consistent with existing literature on privacy regulation, group functioning, and residential satisfaction. Specifically, findings support Altman's (Altman, 1975; Altman & Chemers, 1980) assertion that effective privacy regulation is related to perceived control and positive privacy experiences. Residents used several privacy mechanisms to increase contact, and these were related, as expected, to control, less crowding, and a greater sense of connection. However, the relationship among "get away" mechanisms, control, and experiences was surprising. Contrary to Altman, none of these mechanisms was related to perceived control over getting away and, while several were related to enjoying solitude, several were also related to increased crowding. Perhaps our survey did not include important regulation mechanisms that make it easy for participants to get away from roommates; future studies may consider adding more regulation mechanisms or using a qualitative approach to identify mechanisms. It was also surprising that telling roommates you want to be alone was related to ease of getting together and experiencing connection – two variables that were predicted to be associated with "get together" mechanisms, not "get away" mechanisms. One possible explanation is that good communication is a characteristic of positive group relationships, which are reflected in the "get together" variables.

Overall, privacy control was related to privacy as expected. These findings were congruent with Altman's (Altman, 1975; Altman & Chemers, 1980) conceptualization about privacy regulation and experiences; that is, control over increasing and decreasing contact relates to fewer negative and more positive privacy experiences. However, the fact that the getting away control was unrelated to solitude was unexpected. It is possible that our participants, who largely

enjoyed connection with their roommates, would rather be together than alone. It is also possible that Altman is wrong about solitude – perhaps being away is more about recovery from stress than enjoyment of being alone. If processes for getting away operate differently, more research is needed to determine how.

The results were congruent with the literature that relates effective privacy regulation to enhanced group functioning (Altman & Haythorn, 1967, Harris et al., 1996, Miller et al., 1982, Nadler et al., 1982). Results were mostly as expected; ease of getting together was related to higher group functioning, and getting away was related to higher group dysfunction. However, both forms of control were not related to both functioning scales. It is possible that functional groups were less interested in getting away from each other, and dysfunctional groups were less interested in getting together; thus, these two processes may be operating independently within this sample.

Privacy experiences also related to the group functioning scales largely as expected, except for solitude and loneliness. Furthermore, ease of getting away was not significantly related to solitude. As suggested above, it is possible that people are not enjoying solitude but are enjoying being away from roommates – that is, they are enjoying escaping from a dysfunctional group. There might also be an interaction with personality, with extraverts less likely to enjoy time spent alone but who still enjoy getting away from a dysfunctional group. Loneliness was not related to group functioning at all. It is possible that not many people were reporting loneliness to begin with, or that they are experiencing adequate interaction with friends outside the apartment; recall that all our group items asked about roommates, not social networks outside of the apartment setting.

Lastly, the results were congruent with the literature that relates effective privacy control with greater residential satisfaction (Harris et al., 1996, McCarthy & Saegert, 1979, Miller et al.,

1981), and added to the existing literature by relating better group functioning with greater residential satisfaction. For environmental satisfaction, apartment and building satisfaction were mostly associated with getting together, positive privacy experiences, and better group functioning. However, solitude was the only significant predictor of room satisfaction. It is possible that because satisfaction is defined by judgements of how well the space meets needs (Casakin & Reizer, 2017), and the room is a solitary space, that room satisfaction only mattered to participants in relation to time they spent alone in the room. It is not a group space, so room satisfaction may not be related to any group measures.

Roommate satisfaction relationships were also mostly as expected, although its relation to solitude and lack of relation to getting away from roommates were surprising. It is possible that there is an interaction personality, as introverts desire and enjoy more time alone, but it could also be that the participants in our study who enjoyed solitude just did not like their roommates or want to spend time with them. This reinforces the idea of solitude as an escape from unpleasant social interaction rather than a positive experience in itself.

The overall satisfaction item combines the effects of environment and roommate satisfaction; the results were mostly as expected, but there were still some surprising results. Ease of getting away from roommates was related to overall satisfaction, despite its lack of relation to any other satisfaction item. It is possible that the correlations were too low individually, but combined it was strong enough to be significant. Also, overall satisfaction was unrelated to experiences of crowding or solitude, despite their relation to roommate satisfaction. It is possible that roommate, room, and environment satisfactions cancel each other out for overall living.

This study adds to the existing literature on privacy and place attachment by combining the components of privacy regulation, privacy experiences, group functioning, and residential

satisfaction in a single study. In addition, the environmental design of the apartment dorm studied provides residents with many mechanisms for regulating privacy. Our results replicate and support the existing literature that privacy regulation is related to group functioning and place attachment. The combination of all three allowed us to investigate a three-way interaction that may influence residential satisfaction and group functioning.

These findings can be used by dormitory designers to help with environmental planning that will benefit student residential life. Because privacy is important for various aspects of personal wellness (Weigel-Garrey et al., 1998, Zeegers et al., 1994, Altman & Chemers, 1980) and is related to group function and residential satisfaction mechanisms for regulating privacy, both getting together and away, should be kept in mind when designing a residential space. Places to be together and alone are both important, and design elements that can be moved (e.g., doors, flexible barriers) can give students an easy mechanism for controlling privacy.

In addition to architects and designers, these findings can help residential life administrators to create more rewarding experiences for students. Because privacy regulation and group functioning (roommate relationships) were related, helping students discover adequate mechanisms for regulating privacy and finding places to get together and away from their roommates are important factors to consider. Students can be educated on various strategies, including good communication skills, to benefit their regulation and interaction skills.

There were a few limitations to this study. For example, the study was conducted on a small college campus and with a single dormitory type. Future research might compare findings for campuses of varying sizes and with various dormitory types. Adding more privacy regulation mechanisms and scales assessing interactions with different personality types (e.g., introversion/extraversion) may help explain some of the results in this study. It might also prove valuable to determine cross-cultural differences, particularly since educational settings are often

multi-cultural communities.

The literature suggests that privacy and residential satisfaction are related to group functioning, so a future studies might also assess group functioning interventions. Given what we know about importance of residential satisfaction to well-being and quality of life (Harris et al., 1996, Korpela et al., 2001, Rollero & de Piccoli, 2010), and the importance of privacy regulation to college adjustment and retention (Kaya and Weber, 2003a; Vinsel et al., 1980), developing such interventions has clear benefits for students and institutions. In sum, research that informs and assesses interventions to enhance privacy regulation in college residential communities continues to be both valuable and relevant.

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Table 1

Principal Component Analysis Loadings and Descriptive Statistics for Group Functioning Scales

			Component loadings	
	M	*SD*	1	2
Functional Group Scale (α = .91)	3.74	1.04		
Roommates have fun as a group			.93	.00
Roommates enjoy spending time with each other			.88	.14
Roommates support each other emotionally			.88	.06
Roommates work well as a group			.80	.31
Roommates cooperate with each other			.67	.42
Dysfunctional Group Scale (α = .78)	2.07	0.77		
Roommates argue with each other			.04	-.80
Roommates negative talk about each other			-.11	-.74
Roommates respect each other's privacy (recoded)			.13	-.72
Roommates disrespect common areas			-.32	-.66
Roommates communicate when issues (recoded)			.54	-.60

Table 2

Statistics for "Get Together" Strategies and Correlations with Privacy Control and Experiences

Descriptive Statistics

"Get together" privacy strategies	*M*	*SD*	% Responses: Never/Rarely	Sometimes	Often/Always
Tell your roommates that you want to be with them	2.91	1.43	45	13	42
Go to a place in your apartment where your roommates are likely to be or to join you (i.e., kitchen, living room, roommate's room)	3.90	1.03	10	21	69
Plan a time when you and your roommates can be together	2.80	1.32	41	28	31
Leave your apartment with your roommates and go to some other location	3.01	1.31	34	26	40

Correlations

		Get together strategies: Tell roommates	Go to place in apartment	Plan a time	Leave apartment
	Privacy control and experiences				
Control	Control over privacy	.20*	.18*	.12	.14
	Easy to get together	.46**	.41**	.31**	.48**
	Easy to get away	.17	.12	.02	.11
Experiences	Want more - lonely	.07	-.02	.03	.06
	Want less - crowded	-.20*	-.24**	-.09	-.08
	Enjoy solitude	-.11	-.11	-.04	-.14
	Enjoy connection	.46**	.41**	.41**	.48**

Note. Percentages combined "Never" and "Rarely" options, and "Often" and "Always" options. All other statistics used the full 5-point scale.

*$p < .05$. **$p < .01$.

Table 3

Statistics for "Get Away" Strategies and Correlations with Privacy Control and Experiences

Descriptive Statistics

"Get away" privacy strategies	*M*	*SD*	% Responses: Never/Rarely	Sometimes	Often/Always
Tell your roommates that you want to be alone	2.05	1.23	71	14	15
Go to a place within your apartment where your roommates are not likely to bother you (i.e., your own room or bed)	4.30	0.94	5	14	81
Do something that will "send a message" to your roommates that you want to be alone (e.g., read a book, study, close bedroom door, sit on your bed)	3.00	1.43	38	21	41
Leave your apartment and go to some other location	3.06	1.31	36	27	37

Correlations

		Get away strategies			
	Privacy control and experiences	Tell roommates	Go to place in apartment	Do something	Leave apartment
Control	Control over privacy	.11	.03	-.07	-.09
	Easy to get together	.26**	-.06	-.02	-.14
	Easy to get away	.08	.08	-.09	.02
Experiences	Want more - lonely	.00	-.11	-.05	-.00
	Want less - crowded	-.01	.21*	.19*	.06
	Enjoy solitude	.02	.30**	.22*	.17
	Enjoy connection	.24**	-.05	-.07	-.18

Note. Percentages combined "Never" and "Rarely" options, and "Often" and "Always" options. All other statistics used the full 5-point scale.

*$p < .05$. **$p < .01$.

Table 4

Descriptive Statistics for Privacy Control and Experience Items

			% Responses		
Privacy Control When in your apartment, how **easy** is it for you to:	*M*	*SD*	Not at All/Slightly	Moderately	Fairly/Very
Control the amount of interaction you have with your roommates?	3.80	1.10	12	21	67
Get together with your roommates when you want to interact with them?	3.84	1.21	16	18	66
Get away from your roommates when you do not want to interact with them?	3.80	1.18	19	16	65
Privacy Experiences When in your apartment, how **often** do you:	*M*	*SD*	Never/Rarely	Sometimes	Often/Always
Want **more interaction** with your roommates than you are getting (i.e., feel lonely)	2.48	1.05	51	36	13
Want **less interaction** with your roommates than you are getting (i.e., feel crowded)	2.15	0.93	67	25	8
Enjoy **time on your own** away from your roommates (i.e., enjoy solitude)	3.89	0.76	3	22	75
Enjoy time together with your roommates (i.e., enjoy connecting)	3.87	0.94	7	20	73

Note. Percentages combined "Not at All" and "Slightly" options, and "Fairly" and "Very" options for privacy control items and "Never" and "Rarely" options, and "Often" and "Always" options for privacy experience items. All other statistics used the full 5-point scale.

Table 5

Correlations for Privacy Control, Experiences, and Group Functioning

	1	2	3	4	5	6	7	8
Privacy control items								
1. Control over privacy	–							
2. Easy to get together	.16	–						
3. Easy to get away	.72**	.03	–					
Privacy experience items								
4. Want more - lonely	.21*	-.21*	.16	–				
5. Want less - crowded	-.36**	.01	-.35**	-.09	–			
6. Enjoy solitude	.01	-.00	.04	.13	.35**	–		
7. Enjoy connection	.31**	.45**	.13	.21*	-.31**	-.24**	–	
Group functioning scales								
8. Functional Group	.28**	.64**	.07	-.06	-.15	-.18*	.72**	–
9. Dysfunctional Group	-.48**	-.17	-.29**	.02	.34**	.20*	-.33**	-.46**

*$p < .05$. **$p < .01$.

Table 6

Descriptive Statistics and Correlations for Residential Satisfaction Items

Descriptive statistics					
			% Responses		
Please rate how satisfied you are with:	*M*	*SD*	Not at All/slightly	Moderately	Very/Extremely
1. Your room as a place to live	4.25	0.91	5	9	86
2. Your apartment as a place to live	4.12	0.98	8	13	79
3. The Lakeside building as a place to live	4.24	0.84	4	9	87
4. Your roommates as a group of people to live with	3.84	1.14	12	22	66
5. Your overall living situation in Lakeside this year	3.93	1.00	9	16	75

Correlations				
Please rate how satisfied you are with:	1	2	3	4
1. Your room as a place to live	–			
2. Your apartment as a place to live	.64**	–		
3. The Lakeside building as a place to live	.78**	.71**	–	
4. Your roommates as a group of people to live with	.15	.43**	.16	–
5. Your overall living situation in Lakeside this year	.63**	.64**	.65**	.46**

Note. Percentages combined “Not at All” and “Slightly” options, and “Very” and “Extremely” options. All other statistics used the full 5-point scale.

*$p < .05$. **$p < .01$.

Table 7

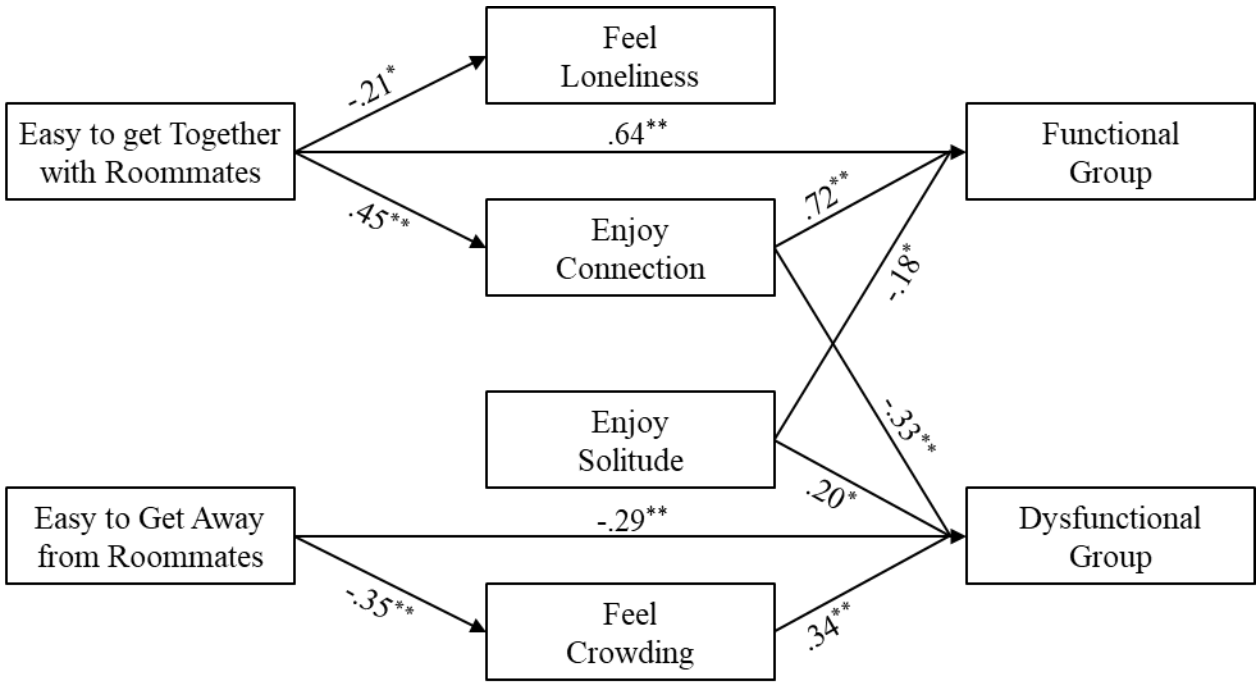
Correlating Privacy Control and Experiences, Group Functioning, and Resident Satisfaction

	Residential satisfaction				
	Room	Apartment	Building	Room-mates	Overall
Privacy control items					
Control over privacy	.20*	.17	.16	.38**	.39**
Easy to get together	.16	.33**	.22*	.43**	.32**
Easy to get away	.05	.05	.04	.16	.23*
Privacy experience items					
Want more - lonely	-.02	-.10	-.05	.06	-.02
Want less - crowded	.06	.15	.14	-.25**	-.10
Enjoy solitude	.20*	.05	.14	-.21*	-.02
Enjoy connection	.14	.39**	.23*	.69**	.40**
Group functioning scales					
Functional Group	.10	.44**	.19*	.72**	.39**
Dysfunctional Group	.01	-.07	.08	-.56**	-.29**

*$p < .05$. **$p < .01$.

Figure 1

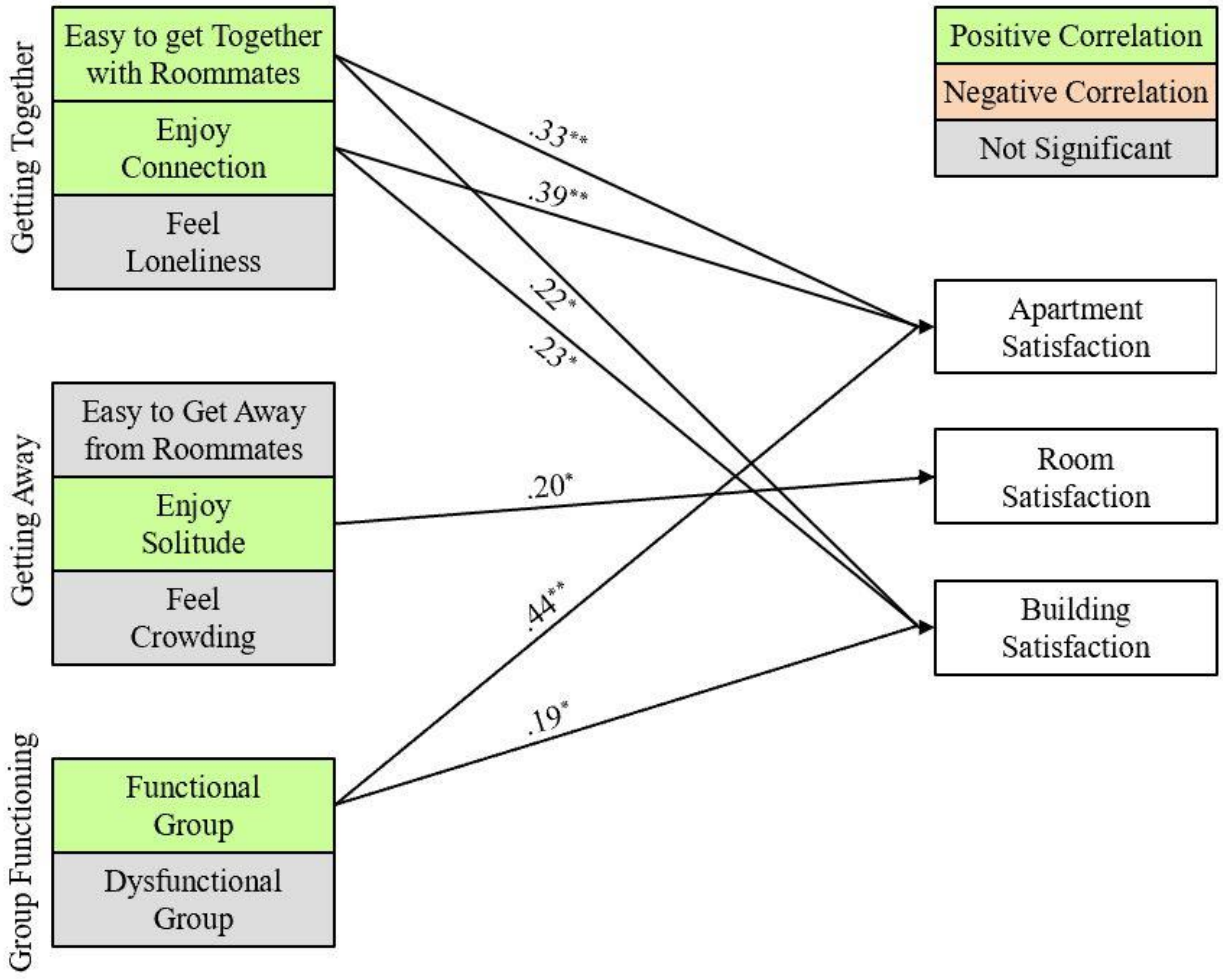
Significant Correlations Between Privacy Control, Experiences, and Group Functioning



*$p < .05$. **$p < .01$.

Figure 2

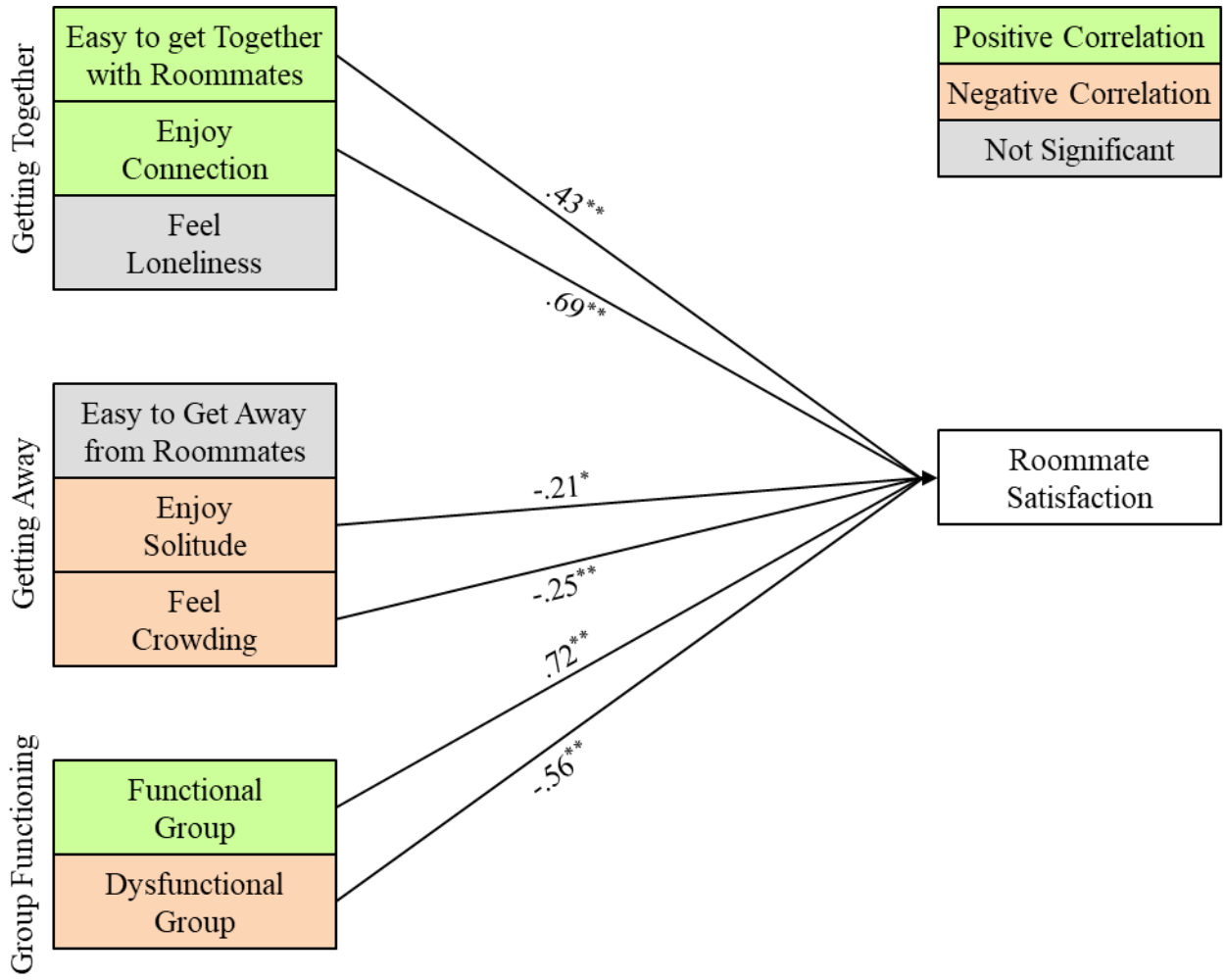
Correlations Between Privacy, Functioning and Satisfaction for Room, Apartment, and Building



*$p < .05$. **$p < .01$.

Figure 3

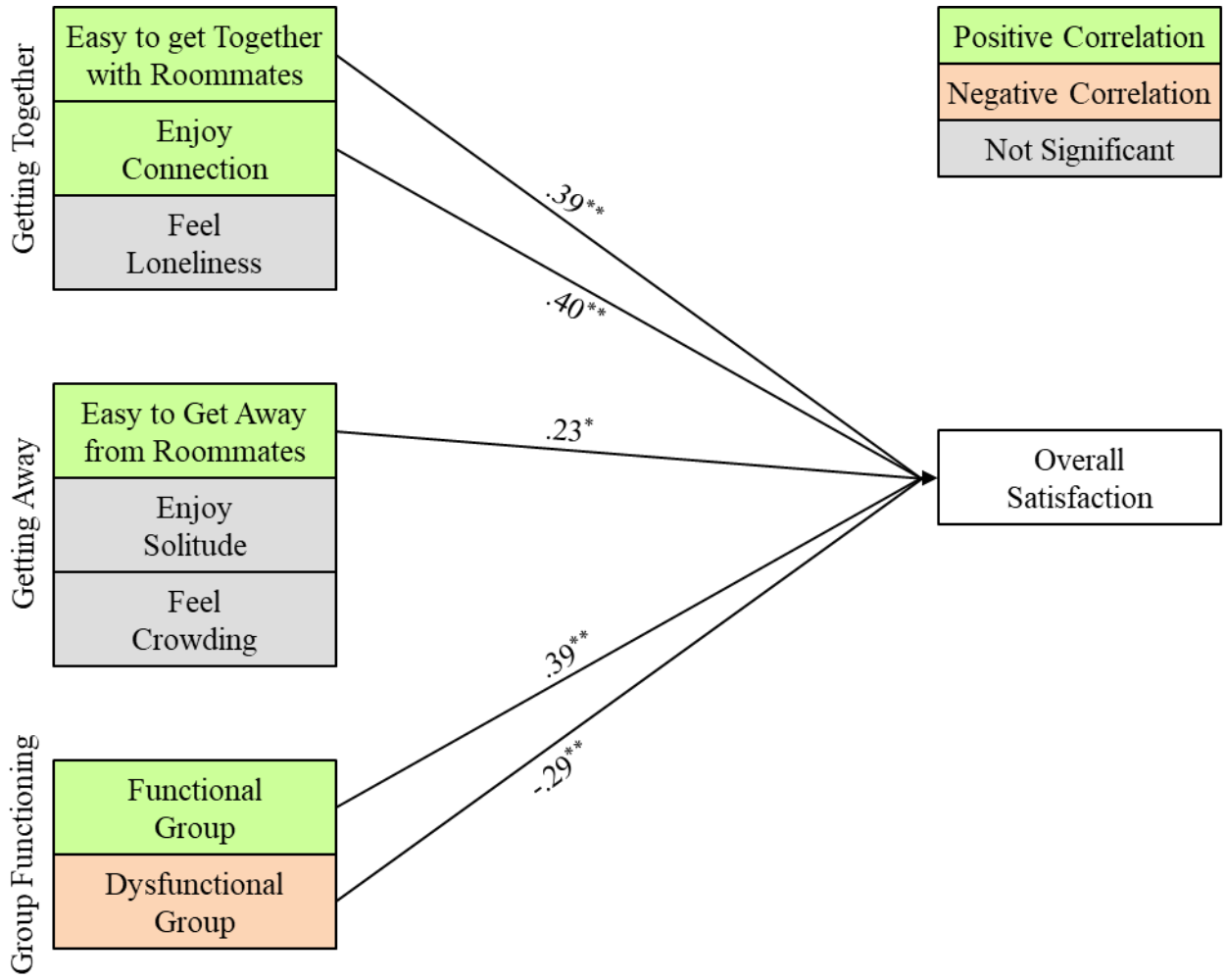
Correlations Between Privacy, Group Functioning and Roommate Satisfaction



*$p < .05$. **$p < .01$.

Figure 4

Correlations Between Privacy, Group Functioning and Overall Residential Satisfaction



*$p < .05$. **$p < .01$.