

# Psychological Needs and Threat to Safety: Implications for Staff and Patients in a Psychiatric Hospital for Youth

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For psychiatric care workers and administrators, physical threat from behaviorally dysregulated patients is an important issue tied to many others, including workers' job satisfaction, motivation, well-being, and attitude toward patients. Yet, the impact of threats to physical safety may be offset by factors in the clinical environment. The authors tested hypotheses derived from self-determination theory concerning the relations of workplace need satisfaction and perceived threat to motivation, attitudes, and well-being among clinical staff within an adolescent psychiatric inpatient hospital. Also tested were relations between need satisfaction and treatment motivation among adolescent patients. To improve the experience of psychiatric workers and their patients, clinical staff and their administrators must attend to the satisfaction of needs for autonomy, relatedness, and competence.

For the worker in a psychiatric inpatient facility, the question "How satisfied am I on the job?" can have multiple meanings, and its answer can have multiple determinants. Job satisfaction in the traditional sense conveys a contentment with salient aspects of the job's demands and rewards, a contentment that in turn may be shaped by the affective "climate" of the workplace (Brief & Weiss, 2002). Job demands can of course include everyday work-related responsibilities, whereas rewards are often thought of as tangible things like pay and benefits; in an inpatient setting, the work climate may be shaped by, among other things, the risks to safety inherent in working with behaviorally compromised patients. Yet, presumably there are other aspects of such work settings that can

contribute to the overall climate in ways that buffer psychiatric employees from the risks of their jobs while providing them a sense of satisfaction in what they do.

There is, in fact, a growing literature that highlights how various attributes of treatment settings affect the motivation and mental health of care workers. This study extends the literature by applying a model of self-motivation and adjustment derived from self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2000). Specifically tested are the relations of worker outcomes (such as "buying into" or acceptance of hospital programs, attitudes toward patients, and employee well-being and job satisfaction) both with satisfaction of basic psychological needs at work and with the experience of threat to safety on the job. Subsidiary goals of this study included testing whether enjoyment of work, or intrinsic job satisfaction, accounts for more variance in well-being and motivation than does extrinsic job satisfaction, or satisfaction with pay and benefits. Finally, in a parallel model, we also examined whether the relation between need satisfaction and "buying into" the treatment program would hold for psychiatric patients, as we predicted it would for staff.

To explicate the basis for these predictions, we present a review of the SDT model of basic needs and their importance in work and treatment settings. We review the literature on work environments for psychiatric care workers as it relates to the SDT model and then describe the residential treatment context in which the current study took place.

## Self-Determination Theory: Basic Needs and the Workplace

SDT is an empirically based theory that is focused on how both intrinsic and extrinsic rewards and satisfactions affect people's self-regulation and well-being (Ryan & Deci, 2000). The theory argues that self-motivation and well-being within a given domain

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are largely dependent on opportunities for the satisfaction of *basic psychological needs* for autonomy, competence, and relatedness (Deci & Ryan, 2000). Thus when a context provides opportunities to experience *autonomy* (i.e., volition, voice, and initiative), *competence* (effectiveness and optimal challenge), and *relatedness* (connectedness and belonging), people are predicted to demonstrate greater self-motivation and adjustment. Contexts that thwart satisfaction of any of these three needs undermine self-motivation, performance, and wellness (Reis, Sheldon, Gable, Roscoe & Ryan, 2000; Ryan, 1995). This formulation holds not only for workers (e.g., Deci, Connell, & Ryan, 1989; Vroom & Deci, 1992) but also for patients in treatment settings (T. Kasser, Davey, & Ryan, 1992; Ryan, Deci, & Grolnick, 1995; Williams, Deci, & Ryan, 1998).

Within organizational settings, SDT suggests that the institutional climate, including management styles, reward contingencies, and the level of challenges and demands, has important implications or functional significance in terms of need satisfaction and the outcomes associated with it (Deci et al., 1989, 2001). For example, workers who experience supervisors as autonomy supportive experience more self-motivation and enjoyment at work, achieve better performance, and report better adjustment and job satisfaction (Baard, 2002; Ilardi, Leone, Kasser, & Ryan, 1993).

SDT also considers the conditions that optimize *internalization*, suggesting that people more willingly adopt and assimilate the culture, regulations, and norms in settings where the fulfillment of basic needs is supported (Chirkov, Ryan, Kim, & Kaplan, 2003; Ryan, 1995). Internalization concerns the extent to which ambient rules and norms are personally valued or embraced and therefore enacted volitionally (Deci, Eghrari, Patrick, & Leone, 1994; Pelletier, Tuson, & Haddad, 1997; Ryan & Connell, 1989). In a treatment setting, SDT would predict that both staff and patients alike should more readily internalize or “buy into” a treatment program the more they experience support for their basic needs. In the current study, we tested this hypothesis for both staff and patients in a psychiatric hospital for youths.

### Work Environment and the Adjustment of Psychiatric Care Workers

There is a growing literature on the relations between work conditions and well-being among workers in psychiatric settings. Much of this literature is descriptively valuable in relating perceived sources of stress and satisfaction in the work climate with burnout and adjustment in workers. Following is a review of this evidence as it relates to the SDT model that organizes the hypotheses to be tested in this study.

#### *Evidence for the Importance of Autonomy*

Prior studies have provided evidence that autonomy, or the need to have voice, choice, and a sense of initiative in one's work, is important to psychiatric care workers' motivation and wellness. McDonnell and Wilson-Simpson (1994) found that participatory interaction with management was associated with staff retention in a residential treatment facility. K. I. Miller, Ellis, Zook, and Lyles (1990) linked participation in decision making to greater job satisfaction and occupational commitment. Additional research in psychiatric settings has shown that lack of administrative control

(Corrigan, 1993), lack of influence on the job (Sullivan, 1989), lack of input into treatment decisions (Donat, Neal, & Addleton, 1991), and lack of control of important aspects of work (Browner, 1987) are all associated with stress and burnout.

#### *Evidence for the Importance of Relatedness*

Evidence has also suggested the importance to psychiatric workers of the experience of relatedness within the workplace. For example, a perceived lack of collegial supports has been associated with burnout among psychiatric workers (Corrigan, Holmes, & Luchins, 1995; Corrigan et al., 1994). K. I. Miller et al. (1990) reported that hospital workers' reports of social support were associated with lower stress and burnout, greater job satisfaction, and greater occupational commitment. Lack of supervisory support (Sullivan, 1989) and lack of respect from coworkers (Donat et al., 1991) have also been linked to stress and burnout among psychiatric workers.

#### *Evidence for the Importance of Competence*

The role of perceived competence in psychiatric work settings has been less examined. However, Donat et al. (1991) found that the inability to control resident behavior and working with uncooperative residents—both of which could pertain to the experience of competence—were among factors predicting stress in direct care staff in a psychiatric hospital.

#### *Evidence for Internalization or “Buying Into”*

Staff members' attitudes toward hospital policy, specifically toward its philosophy of care and its treatment program, can be an important, and sometimes affectively charged, aspect of work. The degree to which staff members embrace, endorse, or “buy into” the organizational philosophy or, in the context of a psychiatric hospital, the predominant treatment approach may be of great concern to hospital administrators.

To the extent that staff attitudes toward and endorsement of the philosophy of care have been addressed, they have typically been treated as independent predictors of stress and burnout, with negative attitudes predicting greater burnout (Corrigan, 1993; Corrigan et al., 1995). However, program attitudes and endorsement may also be viewed as dependent variables. Within a psychiatric inpatient setting, it might be expected that when staff members experience opportunities to satisfy psychological needs in the workplace, they would evidence more internal, rather than external, motivation for their work generally and for the implementation of the hospital's program of care. Within SDT, this expectation follows from the proposition that support for basic needs facilitates internalization (Deci & Ryan, 1985; Ryan & Deci, 2000).

Although the studies cited above proceed from varying traditions and disciplines, they point to the significant impact of psychiatric staff members' perceptions of their work environment on their levels of stress and adjustment. Specifically, when workers experience a lack of social support in their environment, and a lack of control or influence over important aspects of their work, the negative impact of stress on workers' well-being and job satisfaction is likely to be accentuated. SDT's need-based model may provide an important organizing framework for these and similar

findings. Accordingly, in the present study, we tested the SDT model in a psychiatric inpatient setting by examining the role of basic needs in psychiatric workers' well-being, job satisfaction, internalization, and attitudes toward patients.

### The Project: The Psychiatric Hospital as a Context for Work and Well-Being

A psychiatric hospital differs from a typical office or professional work setting in a number of ways, with the potential for violence being among the most salient of them (e.g., Caldwell, 1992). In many clinical settings, there is an ongoing tension between balancing the requirement for maintaining safety and the desire to provide a therapeutic and nurturing atmosphere. When safety is at stake, staff responses are likely to orient toward being Hippocratic (avoiding harm) without necessarily being therapeutic (conducting toward positive change, however defined), despite the argument that providing the structure needed to maintain safety *is* therapeutic (Plant, 2003). That is, when safety concerns loom large, behavior management may become more salient than therapy. In addition, coping with the threat of violence and injury may represent a source of stress that affects the worker's motivation and well-being on the job and attitudes toward the patients among other outcomes. Nonetheless, from an SDT perspective, the experience of need satisfaction at work—that is, the perception that one has opportunities to have input into one's job, to experience competence, and to feel connected to others—may help offset the potentially negative impact of a perceived threat to one's safety.

The present study took place in a psychiatric inpatient hospital for children and adolescents that was about to undergo a change in its treatment milieu program (see Donovan, Plant, Peller, Siegel, & Martin, 2003; Donovan, Siegel, Zera, Plant, & Martin, 2003; Plant, 2003). In late 2000, a new treatment program was gradually introduced to the units of this hospital for youths. Aspects of the program addressed concerns, coming both from within the institution and from outside it, over excessive use of restrictive treatment interventions (e.g., physical restraint and seclusion) to manage difficult and frequently violent behaviors. In the new program, less emphasis was to be placed on the use of coercive measures, and more emphasis was to be given to interventions that could be considered need satisfying in the SDT sense. In the first part of this study, then, staff were surveyed just *prior* to the implementation of the new program, at a time when concerns for safety were high and when coercive measures were still a standard, though increasingly scrutinized, part of staff members' intervention strategies. The hypotheses examined were the extent to which staff, as a function of their own perceptions of opportunities for psychological need satisfaction in the work environment, would endorse more internal as opposed to external motivation for implementing the hospital's current program, and to what degree staff's experience of need satisfaction would relate to their well-being, job satisfaction, and orientation toward patients. Perceived threat to safety was expected to be negatively related to well-being, motivation, job satisfaction, and attitudes toward patients. In the second phase of the study, adolescent patients were surveyed 1 year later, when their treatment was being guided by the new program that stressed coercive measures less and need-satisfying measures more.

Survey data were obtained from staff at all administrative levels in a northeastern U.S. state-run psychiatric hospital for children.

Participating were 186 staff (54% women). Standard demographic data (age, sex, and years of education) were gathered; however, because of concerns about maintaining confidentiality, this information was recorded on a separate, tear-off section at the end of the questionnaire.<sup>1</sup> Items concerning years of employment at the hospital, professional discipline, and shift were included in the questionnaire itself, and thus the sample may be categorized in terms of these variables. Group-level characteristics for the sample are presented in Table 1.

Participation was voluntary, and participants were assured of the confidentiality of all responses. Participants were given time away from regular work duties to complete the survey in small groups. Staff were told in the instructions that their "personal views are vitally important not only in order to understand what we are currently doing well as an agency, but also in order to find out what we can do to make [the hospital] a better environment for both children and staff."

Scales included in the staff survey<sup>2</sup> follow (see the Appendix for items developed specifically for this study).

### Basic Need Satisfaction

Scales to assess satisfaction of the needs for autonomy, relatedness, and competence were adapted from the Basic Need Satisfaction at Work Scale (Deci et al., 2001; Ilardi et al., 1993). The subscales are summarized below:

*Autonomy support: Personal and institutional.* In a hospital setting, autonomy support could potentially be experienced at two levels: at the level of the individual staff member's daily work routine and at the level of the staff member's felt involvement in decision making that affects the institution. These two levels were operationalized in this study through measures of *personal autonomy support* and *institutional autonomy support*, respectively. Participants responded to five Likert-type items (1 = *strongly disagree*; 5 = *strongly agree*) reflecting personal autonomy support (e.g., "I have a lot of say about how my job gets done at [name of hospital].") and three items reflecting institutional autonomy support (e.g., "Employees are consulted when decisions are made at [name of hospital]."). Alphas were .68 and .78 for the personal autonomy support and institutional autonomy support scales, respectively. Mean personal autonomy support and institutional autonomy support scores were positively correlated ( $r = .56, p = .01$ ).

*Relatedness.* Four Likert-type items assessed the experience of relatedness at work. An example item is "My coworkers care about me." The alpha for the scale was .70. Mean scores were calculated, with higher scores representing greater relatedness.

*Competence.* Three Likert-type items tapped feelings of competence at work (e.g., "I feel competent when I am at work.") The

<sup>1</sup> One result of this decision is noteworthy. Specifically, these demographics cannot be linked to individual survey responses for inclusion in subsequent analyses. All 186 questionnaires may, however, be characterized demographically at the group level.

<sup>2</sup> All scale scores that were created by summing were standardized. The only scores that were not created by summing were those from the SDT tradition that measure psychological need satisfaction; scores for these were created by averaging across items, in accord with customary practice.

Table 1  
*Staff Sample Characteristics (N = 186)*

Variable	%	<i>M</i>	<i>SD</i>
Age (years)		63.0	8.69
Education (years)		16.8	2.52
Years of employment		9.4	7.51
Professional discipline			
Nursing	25.8		
Social work	6.5		
Psychology	4.8		
Psychiatry	3.8		
Children's service worker	42.5		
Rehabilitation	5.4		
Teacher	7.0		
Housekeeping	0.5		
Other	3.8		
Shift			
First	54.7		
Second	33.7		
Third	11.6		

alpha for the competence scale was .63. Higher mean scores represent greater experience of competence at work.

#### *Safety: Perception of Threat and Frequency of Assault and Injury*

Three Likert-type items reflected staff members' subjective report of perception of threat (e.g., "I frequently have concerns for my physical safety when I'm on the unit."). The alpha for the perception of threat items was .72. A single item asked staff to estimate the frequency with which they had been assaulted by patients during the time they had been employed at the hospital. Another item asked staff to estimate the frequency with which such assaults had resulted in the staff member's having been physically injured. Because frequency of assault and frequency of injury were highly correlated ( $r = .66, p < .01$ ), they were summed and standardized to create a single index, labeled history of assault and injury. It is interesting that perception of threat and a history of assault and injury were unrelated ( $r = .12, p > .1$ ).

#### *Well-Being at Work: Vitality and Stress*

Previous studies in psychiatric facilities have focused on stress and burnout as indicators of adjustment among psychiatric workers. *Burnout* concerns "an exhaustion of physical and mental resources," a "loss of positive energy," or "emotional, physical and attitudinal exhaustion" (Sullivan, 1989, p. 84). Accordingly, we used two indices to tap positive energy or its depletion. As a positive indicator, three items were drawn from a measure of *subjective vitality* defined as "one's conscious experience of possessing energy and aliveness" (Ryan & Frederick, 1997, p. 530). Vitality has been associated with indicators of both physical and psychological well-being and is thus considered to be a good proxy for well-being in general (Ryan & Frederick, 1997). The scale specifically assessed vitality at work, or the degree to which people feel alive and energetic on the job (e.g., "I feel energized when I am at work."). To tap energy depletion, we included a scale to assess *perceived stress*, a variable that is typically viewed as inimical to vitality (Ryan & Frederick, 1997). Selye (1956), for

example, suggested that adaptive energy is readily depleted by psychological and physical stressors. A sample item is "I regularly experience too much stress at work." Both three-item scales were rated on 5-point Likert-type scales. Alphas were .82 and .52 for the vitality and stress items, respectively, and these variables were negatively correlated ( $r = -.44, p = .01$ ).<sup>3</sup> The average interitem correlation for the stress items was .27. A composite variable, *well-being at work*, was then created by standardizing each scale and subtracting stress scores from vitality scores. Higher scores represent greater well-being.

#### *Internalized Motivation of Treatment Program*

This variable concerns whether staff feel more externally or internally motivated with respect to implementing the hospital's program of care, that is, whether they feel more pressured to implement the program or whether they identify with the program's goals and philosophy. Six Likert-type items (1 = *strongly disagree*; 5 = *strongly agree*) reflected two motivational or regulatory styles and were based on scales developed by Ryan and Connell (1989). Specifically, three items tapped external regulation (e.g., "I feel pressured into following the milieu program."), and three items tapped internal regulation (e.g., "I identify with the goals of our current program."). Alphas were .63 and .77 for the external and internal scales, respectively. External regulation and internal regulation were negatively correlated ( $r = -.48, p = .01$ ). In line with procedures established by Ryan and Connell (1989) for calculating the relative autonomy of regulation for behavior in a given domain, the internalized motivation of treatment program scale was created by subtracting standardized external regulation scores from standardized internal regulation scores, with higher scores representing more internal motivation for implementing the treatment program.

#### *Positive Attitudes Toward the Program*

Previous studies in the psychiatric literature have considered staff attitudes toward the treatment program (Corrigan, 1993; Corrigan et al., 1995). Accordingly, in addition to assessing program internalization, we included six items that assessed staff attitudes and beliefs about the hospital's treatment program. An example item is "I feel positively about the way we currently provide treatment for the children at [name of hospital]." The alpha for the scale was .77. Scores were summed and standardized, with higher scores representing more positive attitudes and beliefs about the program.

#### *Job Satisfaction*

Job satisfaction has been conceptualized in numerous ways (Brief & Weiss, 2002). From an SDT perspective, job satisfaction is thought to have both extrinsic and intrinsic components. Thus

<sup>3</sup> By removing one item from the stress scale, reliability could be improved to .60. We decided to retain all three items, however, because the alternative two-item scale was associated less strongly with the vitality scale ( $r = -.37, p = .01$ ), and the strength of this negative association was conceptually important to our composite well-being variable.

two dimensions of job satisfaction were assessed: satisfaction or contentment with the job itself, or *intrinsic job satisfaction*, and satisfaction or contentment with the job's extrinsic rewards, or *extrinsic job satisfaction*. Intrinsic and extrinsic job satisfaction were each represented by three items (e.g., "Most days I find my job to be extremely satisfying" for intrinsic, and "I am satisfied with my current level of pay and benefits" for extrinsic) to which participants responded on a 5-point Likert-type scale. Scores were summed and standardized. Alphas were .83 and .87 for the intrinsic and extrinsic job satisfaction scales, respectively. The two scales were positively correlated ( $r = .29, p = .01$ ).

*Controlling Attitudes Toward Patients*

Previous research has shown that educators who are put under controlling pressures tend to be more controlling of those whom they teach (e.g., Deci, Spiegel, Ryan, Koestner, & Kauffman, 1982), and similar dynamics have been shown to operate with parents (see Grolnick, 2003). Might a similar finding emerge in the psychiatric setting? In order to explore the relations between workers' experience of need satisfaction in the workplace and their orientation toward their patients, we had participants respond to three items that reflected controlling attitudes toward the patients with whom they worked. An example item is "I think we do not exert enough control over the children here to get them behaving appropriately." The alpha for the scale was .73. Items were summed and standardized to create the CAP scale; higher scores represent more controlling attitudes.

**Basic Needs and Worker Outcomes in the Psychiatric Workplace**

To provide a preliminary overview of the relations between the satisfaction of basic psychological needs and the well-being, motivation, job satisfaction, and attitudes of staff, in Table 2 we present the zero-order correlations between these variables. As predicted, need satisfaction (personal autonomy support, institutional autonomy support, competence, and relatedness) was posi-

tively correlated with psychiatric workers' well-being at work, internalized motivation for the treatment program, more positive attitudes toward the program, and intrinsic job satisfaction. Extrinsic job satisfaction was also associated with need satisfaction, although less strongly than was intrinsic job satisfaction. Of the two physical safety variables, perception of threat and history of assault and injury, only the former was related in the predicted negative direction to workers' well-being. Finally, controlling attitudes toward patients were generally negatively associated with staff members' perceived need satisfaction but positively associated with perceptions of physical threat.

To better test the relations of need satisfaction (autonomy support, relatedness, and competence) and perceived threat to outcomes in the workplace, we regressed each outcome onto the three needs and two safety variables considered simultaneously. Outcomes tested were well-being at work, extrinsic job satisfaction, intrinsic job satisfaction, positive attitudes toward the program, internalized motivation for the treatment program, and controlling attitudes toward patients. Standardized regression coefficients appear in Table 3.

Satisfaction of needs for autonomy (personal autonomy support) and competence was, as expected, positively related to workers' well-being, whereas relatedness was only marginally related. In contrast, perception of threat to physical safety, but not a history of assault or injury, was negatively predictive of well-being at work when these variables were allowed to compete for variance with the basic needs variables.

Satisfaction of each of the needs (excluding institutional autonomy support) had a positive association with workers' intrinsic job satisfaction, whereas extrinsic job satisfaction was positively related to personal autonomy and competence but negatively related to relatedness, suggesting that there may be something about a focus on external rewards that is inimical to a focus on relationships. Of the safety variables, only perception of threat was associated with job satisfaction, having a modest negative relation with intrinsic job satisfaction.

Table 2  
*Zero-Order Correlations Among Staff Variables (N = 186)*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. PAS	3.26	0.78	—	.56**	.61**	.39**	-.29**	-.04	.54**	.34**	.31**	.56**	.34**	-.26**
2. IAS	2.63	0.97		—	.55**	.22**	-.18*	-.04	.42**	.34**	.36**	.44**	.25**	-.15*
3. C	4.05	0.62			—	.44**	-.17*	-.07	.50**	.34**	.33**	.55**	.36**	-.15*
4. R	3.80	0.70				—	-.15*	-.12	.36**	.34**	.37**	.42**	.04	-.06
5. POT	8.17	2.97					—	.12	-.36**	-.12	-.13	-.29**	-.17*	.24**
6. HAI	8.33	38.89						—	-.10	.15*	.05	-.06	-.03	.04
7. WBW	0.00	1.69							—	.39**	.36**	.76**	.32**	-.26**
8. IMTP	-0.01	1.71								—	.65**	.33**	.23**	-.24**
9. PAP	14.51	4.40									—	.41**	.22**	-.30**
10. IJS	10.35	3.19										—	.29**	-.22**
11. EJS	9.93	3.55											—	-.17*
12. CAP	7.14	2.56												—

Note. Values for M and SD are for unstandardized scales, with the exception of WBW and IMTP, which are composite scales. PAS = personal autonomy support; IAS = institutional autonomy support; C = competence; R = relatedness; POT = perception of threat; HAI = history of assault and injury; WBW = well-being at work; IMTP = internalized motivation for treatment program; PAP = positive attitudes toward program; IJS = intrinsic job satisfaction; EJS = extrinsic job satisfaction; CAP = controlling attitudes toward patients.  
\*p < .05. \*\*p < .01.

Table 3  
*Summary of Standardized Beta Coefficients: Need Satisfaction and Safety (N = 186)*

Dependent variable	Predictors						Overall $R^2$
	PAS	IAS	R	C	POT	HAI	
WBW	.24**	.10	.12†	.21**	-.22**	-.03	.40**
IJS	.25**	.12	.18**	.23**	-.13*	.01	.43**
EJS	.20*	.03	-.19*	.29**	-.09	-.01	.19**
PAP	.02	.29**	.31**	.01	-.02	.10	.24**
IMTP	.08	.22**	.26**	.07	-.02	.20**	.25**
CAP	-.23*	-.02	.05	.02	.16*	.01	.09**

*Note.* PAS = personal autonomy support; IAS = institutional autonomy support; R = relatedness; C = competence; POT = perception of threat; HAI = history of assault and injury; WBW = well-being at work; IJS = intrinsic job satisfaction; EJS = extrinsic job satisfaction; PAP = positive attitudes toward program; IMTP = internalized motivation for treatment program; CAP = controlling attitudes toward patients.  
 †  $p < .08$ . \*  $p < .05$ . \*\*  $p < .01$ .

Additional findings indicated that workers' attitudes toward the treatment program were more positive, and their motivation for carrying out that program was more internal, the more they perceived their basic needs for autonomy (at the institutional level) and relatedness to be supported on the job. Counterintuitively, a history of assault and injury on the job was positively related to internal motivation for carrying out the treatment program, whereas perception of threat was unrelated to motivation.

Finally, when basic needs and personal safety were allowed to compete for variance in workers' attitudes toward patients, only workers' experience of personal autonomy and their perception of threat were predictive. When staff felt support for autonomy on the job, their attitudes toward patients were less controlling, whereas perceived safety threat was associated with more controlling attitudes.

#### The Relation of Intrinsic and Extrinsic Job Satisfaction to Well-Being and Motivation

Well-being and motivation were expected to be closely related to intrinsic job satisfaction and less associated with extrinsic job satisfaction. Table 2 presents correlations of these two types of job satisfaction with workers' well-being and motivation. Although both are related to outcomes, the relations are notably stronger for intrinsic, as opposed to extrinsic, job satisfaction. To further test these relations, we ran regressions in which both intrinsic job satisfaction and extrinsic job satisfaction were entered simultaneously. Table 4 presents the results. Although both intrinsic and extrinsic job satisfaction significantly predicted worker well-being and motivation, intrinsic job satisfaction was by far the more substantial predictor. It seems that enjoying one's work is more important to the average psychiatric staff member, in terms of well-being and motivation, than is satisfaction with the tangible rewards that his or her work provides.

#### What About the Patients?

To take this study of the hospital climate and motivation a step further, we also examined whether basic need satisfaction might be

positively associated with internalized motivation for treatment among psychiatric patients in a way that paralleled the relations between need satisfaction and motivation found among staff. For example, it has been found that children and adolescents who experience greater supports for autonomy from teachers also report more internalized motivation for schoolwork, characterized by greater initiative, persistence, and engagement in academic activities (see Ryan & LaGuardia, 1999). In various outpatient clinical settings, need satisfaction has also been associated with greater internal motivation, resulting in better adherence to treatment interventions, as well as with greater maintenance of change over time (e.g., Pelletier et al., 1997; Williams, Grow, Freedman, Ryan, & Deci, 1996). Thus, 1 year after the staff surveys described above were collected, and with the new treatment program in place, we conducted a survey of the young psychiatric inpatients that related their perceived need satisfaction to their motivation for treatment.

To capture a larger sample, we administered two rounds of patient surveys, separated by roughly 6 months. In all, 93 patients participated (45 from the first administration, 48 from the second). Only adolescent patients were included. In addition, patients judged to be actively psychotic at the time of survey administration were excluded. Each patient in the sample is unique (i.e., if a patient was present in the hospital at both points in time, only data from the first collection were included). Sample characteristics are presented for both waves in Table 5. Because tests revealed no significant difference be-

Table 4  
*Summary of Standardized Beta Coefficients: Job Satisfaction, Well-Being, and Motivation (N = 186)*

Dependent variable	Predictors		Overall $R^2$
	IJS	EJS	
WBW	.73**	.12*	.59**
IMTP	.29**	.14*	.13**

*Note.* IJS = intrinsic job satisfaction; EJS = extrinsic job satisfaction; WBW = well-being at work; IMTP = internalized motivation for treatment program.  
 \*  $p < .05$ . \*\*  $p < .01$ .

Table 5  
Patient Sample Characteristics by Wave

Characteristic	Wave 1 (n = 45)			Wave 2 (n = 48)			<i>p</i> <sub>difference</sub>
	%	<i>M</i>	<i>SD</i>	%	<i>M</i>	<i>SD</i>	
Gender (% female)	37.8			39.6			.86
Age at intake (years)		13.8	1.9		14.1	2.2	.41
Length of stay at time of survey (years)		0.5	0.5		0.3	0.2	.004
Age at time of survey (years)		14.4	1.7		14.5	2.2	.72
Race							.66
African American	28.9			25.0			
Asian	0.0			4.2			
Caucasian	37.8			39.6			
Hispanic	31.1			27.1			
Other	2.2			4.2			

tween the two administrations,<sup>4</sup> analyses are based on the aggregated responses.

Surveys were administered by teachers during class time in the on-site school classrooms. Patients were assured that unit staff would not be aware of their responses. Consent to participate was first obtained from guardians; assent was then obtained from the patients themselves.

The scales used in the brief patient survey are described below.

#### Basic Need Satisfaction

Items assessing basic need satisfaction were based on the Health Care Climate Questionnaire (HCCQ; V. M. Kasser & Ryan, 1999; Williams et al., 1996). Previous work in this area has focused on outpatients' experience, in various settings, of autonomy support. Six items from the HCCQ were adapted for this study in order to tap this dimension. Examples include "I feel that staff usually provide me with choices about how to spend my free time on the unit" and "The staff encourage me to ask questions." Three more items were included that were thought to reflect warmth or the need for relatedness; an example is "I feel like the staff like me." In all, patients responded to a 9-item need satisfaction scale, which we called warmth and autonomy support. Scores on this scale were calculated by averaging the 9 items of which the scale consisted, with higher scores representing higher perceived warmth and autonomy support. The alpha for the scale was .86.

#### Motivation for the Treatment Program

Patients responded to five items assessing the degree to which their motivation to participate in treatment was more internally or externally motivated. The internal motivation scale consisted of three items (e.g., "I follow the rules because I want to get better."). The external motivation scale consisted of two items (e.g., "I follow the rules because I will get in trouble if I do not."). The internal motivation and external motivation totals were calculated by summing and standardizing component items, and alphas were .79 and .62, respectively.

#### Psychological Need Satisfaction and Patients' Motivation for Treatment

To explore the relations between need satisfaction (warmth and autonomy support) and treatment motivation among the patients,

we considered the zero-order correlations among these variables. The experience of warmth and autonomy support was strongly associated with internal motivation for treatment ( $r = .73, p < .01$ ), whereas it was statistically unrelated to external motivation ( $r = .19, ns$ ). Patients' reports of internal and external motivation were not related to one another ( $r = .16, ns$ ). Owing to the lack of shared variance between internal motivation and external motivation, simultaneous regressions revealed results almost identical to those from the correlations and thus are not separately reported.

#### General Discussion of the Project

The present study provided support for several hypotheses, derived from self-determination theory, suggesting that satisfaction of psychological needs for autonomy, relatedness, and competence within a psychiatric hospital setting is important for both staff and patients alike. Employees reported greater well-being and job satisfaction, greater internalization of and more positive attitudes toward the treatment program, and less controlling attitudes toward their patients when they experienced satisfaction of basic needs on the job. Similarly, patients' motivation for treatment was likely to be more internalized to the extent that they experienced warm and autonomy-supportive interactions with their unit staff.

A theme that emerged in the research concerns the relative balance between risks and satisfactions in a psychiatric setting. Psychiatric hospital work is often accomplished against a backdrop of physical risks. In this sample, in which staff had worked an average of just over 9 years, the mean reported frequency of experiencing an assault was 7.0, and the average reported frequency of assault-related injuries was 2.3. Despite the prevalence of assault, self-reported frequency of assault and injury was little related to staff attitudes and outcomes. In contrast, believing that one's safety is in jeopardy was more strongly associated with ill-being on the job and more controlling attitudes toward patients

<sup>4</sup> The chi-square test of independence revealed that neither sex,  $\chi^2(1, N = 93) = 0.03, p > .8$ , nor race,  $\chi^2(4, N = 93) = 2.43, p > .6$ , was contingent on wave of data collection. *T* tests for mean differences were nonsignificant for age at intake and age at time of the survey ( $ps > .4$ ) but significant for length of stay at time of the survey ( $p < .01$ ). Because sample characteristics were otherwise comparable, and because the two waves did not differ on the two variables of interest ( $ps > .7$  for both need satisfaction and treatment motivation), the two waves were combined.

than was actual history of assault. Several unpredicted findings regarding a self-reported history of assault and injury that warrant exploration include the observed positive relation between a history of assault and injury and motivation for the treatment program and the lack of an association between a history of assault and injury and the perception of threat. Regarding the former finding, it may be that staff members who have experienced higher rates of assault and injury and have remained on the job are a self-selected group; they may be those who, whether prior to or as a result of their injuries, are more committed to the program, perhaps in a kind of "consensual validation." Alternatively, it may be that the relation between a history of assault and injury and motivation for the treatment program can be explained by the fact that these data were collected at a time when use of coercive measures was more readily accepted as a standard response to behaviorally dysregulated patients: Staff who had more frequently been assaulted or injured were more likely to embrace a treatment philosophy that sanctioned the use of coercive measures as a means to provide safety to staff and patients. More puzzling is the lack of a relation between the self-reported *experience* of assault and injury and the *perception* of physical threat. Ordinarily, one would expect that having actually been assaulted would lead to feeling more threatened. The data did not support this assumption.<sup>5</sup> It may be that proneness to perceive threat in one's environment may be less a factor of the presence of real dangers as it is a factor of other variables. As an example, the data suggest that perception of threat was related to well-being on the job ( $r = -.36, p < .01$ ), so that perhaps readiness to perceive threat is a matter of overall adjustment.

The present results also showed that staff who felt greater need satisfaction on the job reported less controlling attitudes toward their patients. This finding suggests that staff's satisfaction of their own needs may have important ramifications for their way of being with their patients. However the nature of this relationship is ambiguous. It could be that staff who are less controlling with patients find more opportunities to experience connectedness, competence, and autonomy on the job. It also may be that when an employee's needs are frustrated (e.g., when they feel overcontrolled or disconnected), they treat patients with less supportive forms of care.

Findings from the brief survey of patients nicely paralleled those from staff. Patients who felt that their needs for autonomy and relatedness were supported in their contacts with unit staff also indicated more internal motivation to participate in their treatment. Future studies might test whether need satisfaction and internal motivation for treatment participation predict positive outcomes of treatment, which was not a focus here. However, there is growing evidence from other studies showing that more internally motivated patients do show better clinical outcomes (Sheldon, Williams, & Joiner, 2003). That is, creating a climate of care that emphasizes supports for experiencing autonomy and relatedness may prove to have some clinical "payback." The issue of enhancing internal motivation for treatment participation is especially salient for populations who are in treatment involuntarily and are often initially resistant to treatment (Plant, 2003; Ryan, Plant, & O'Malley, 1995). This salience was supported in a recent study by Zeldman, Ryan, and Fiscella (2004) in which patients in treatment for opiate addiction who experienced staff as more autonomy supportive showed better adherence and compliance as measured

by random urine tests and staff ratings of attendance and involvement.

In interpreting these findings, it is important to consider the context in which this study occurred. When the study began, the use of restrictive interventions (i.e., use of seclusion and restraints) was perceived by many, both inside and outside the institution, to be excessive. Yet, many staff members felt it important to be able to use restrictive measures in order to ensure the safety of both staff and patients. More restrictive measures were often seen as a way to avoid further escalation of violence. In our clinical view, however, factors that enhance basic need satisfaction for both patients and staff can play a critical role in preventing, and possibly "defusing," potentially violent outbursts. From an SDT perspective, it is possible that when people experience some measure of autonomy (feeling understood, having voice and choice), as well as relatedness and competence, they are less likely to escalate a situation to the point of violence, and staff may feel it is less necessary to resort to restrictive measures. In contrast, when patients feel pressured and controlled, they are more likely to be reactive, and, in a kind of coercive cycle (Plant, 2003), the "pull" may be greater for staff to be more controlling and perhaps rely on more restrictive means to ensure compliance and safety. Clearly this study falls far short of documenting such a model, but it does suggest that need satisfaction is associated with more willingness to engage in therapeutic programs on the part of staff and patients alike.

### Limitations

There are several limitations to this work. Because a goal of the study was to assess staff's real attitudes toward the institutional climate and toward patients, staff were ensured complete confidentiality. This meant, however, that patient scores of staff treatment could not be linked with staff self-reports, and thus patient and staff surveys were treated separately. Future studies would be enhanced if staff attitudes and motivation could be linked with patient reports and outcomes, particularly if longitudinal designs could be used. Second, the data were collected within a single, state-funded, inpatient hospital for very behaviorally compromised youths and thus may not generalize to other care settings where patient and staff issues differ. Additional studies within varied care settings are needed (see, e.g., V. M. Kasser & Ryan, 1999). Third, staff well-being was measured by a single, composite indicator comprising vitality and stress scores. Although we believe this measure to be particularly salient to the experience of psychiatric workers and to be an extension of prior work focusing on stress in hospital settings, it may be important to replicate our findings on staff well-being using other measures (see, e.g., Petterson & Arnetz, 1997). Finally, it should be noted that several of the scales used were created or adapted for this study. Although their psy-

<sup>5</sup> Note that 3 participants reported frequencies of assault > 100. If these cases are treated as outliers and removed from the data set, the correlation between a history of assault and injury and a perception of threat becomes significant ( $r = .19, p < .01$ ). We decided not to treat these cases as outliers, however, because their average years of employment (16.7) was higher than that of the overall sample average (9.4), thus possibly accounting for the high frequency of assault reported, and because the data provided by these participants were otherwise complete and unproblematic.



chometric properties were generally adequate, further work is warranted to ensure that each scale uniquely represents the concept it was designed to measure.

### *Implications and Applications of the Project*

These findings raise important implications for interventions at various levels of an organizational “ecosystem” of this nature. Hospital administrators, for example, may wish to consider finding ways to provide opportunities for autonomy (choice, voice, initiative), competence (sense of efficacy), and relatedness (social support and connectedness) within the work climate to facilitate staff well-being and more positive engagement in the workplace.

Given the highly legislated, results-oriented nature of many inpatient settings, providing for the support of autonomy may be both especially challenging and especially important. That is, in a state psychiatric facility, professional ethical standards, a concern for outcomes and customer satisfaction, and state regulations could ordinarily conspire to produce a climate of control. In addition, when the importance of staff’s “buying into” the hospital’s philosophy of care comes to the fore—as can be especially relevant during a time of programmatic change—attending to the need for autonomy may prove to be especially critical.

As this project demonstrated, autonomy can be experienced at two levels within an organizational setting, and hence interventions may appropriately target either or both of these levels. Administrators can foster a sense of participation in decision making that affects the hospital, thereby supporting staff members’ experience of autonomy at the institutional level. Providing opportunities for staff to voice their opinion on issues that matter to them—whether in regard to policy that affects treatment issues, the physical plant, scheduling, or other aspects of the setting—can support their sense of autonomy. Providing staff members a voice in hospital policy will be experienced as autonomy supportive, however, only if staff members also perceive that their voice is, in fact, being heard. That is, provision of institutional autonomy support is likely to backfire—that is, lead to disillusionment and resentment—if it is not also combined with a kind of “institutional competence feedback” (i.e., an indication that staff opinions can have an effect on policy). Such, for example, has been the fate of many a teacher council in a school where leadership provided a show of autonomy support without the substance to back it up.

Staff members’ autonomy can also be supported at the personal level. Although there may be many systemic obstacles to staff’s taking initiative at the institutional level, this need not be the case at the level of their day-to-day responsibilities. Allowing staff to feel they have some say in how they go about their duties, that they can be creative in their approach to accomplishing their tasks, and that they are not constantly under the scrutiny or surveillance of a controlling, micromanaging supervisor can go a long way toward fostering a sense of autonomy support at this more personal level. Staff evaluations, a necessary part of life in an organization, can be experienced by staff either as sources of control and punishment or as sources of valuable information about their competence as well as their progress toward (ideally) self-selected goals.

This last point applies to support for competence as well as relatedness. Competence support incorporates two aspects: both feedback about how one is doing and the experience of optimal challenge. In work settings, the former often takes place in the

context of evaluations but can happen less formally in daily interactions between supervisors and their staff. Most staff, in fact, value hearing both sides of the feedback coin: that is, appreciation of their work and suggestions for professional development. When made within the context of a relationship that is experienced on average as need supporting, such competence-relevant feedback is more likely to be received with openness than defensiveness. Optimal challenge—the second element of competence support—is a matter of feeling stretched to use one’s abilities, but not to the point of breaking. Supervisors who can elicit from their staff a sense of the balance between energy and excitement for their work on the one hand and stress on the other may have a good gauge of whether the challenges of the job are experienced as minimal, optimal, or excessive. Boredom and burnout are the usual affective markers of the two ends of the continuum of task-related challenge, with interest and excitement marking the middle.

Regarding relatedness, it is often the case that when supervisors elicit the perspective of their staff (grant them a “voice”), and take an interest in the level of challenge their staff are experiencing (provide competence-relevant feedback), they have staff who experience warmth and connectedness in the supervisory relationship. That is, autonomy support and competence support both presuppose and promote a quality of relationship that fosters satisfaction of this third basic psychological need. Feelings of warmth and respect proceed from feeling listened to and understood (autonomy), from feeling valued and appreciated (competence). The three needs are interrelated, and their fulfillment ultimately has everything to do with the kind of relationships that exist among staff and their supervisors. When staff trust that their needs are of concern to their supervisors, then the “external” aspects of their work—whether pay and benefits or threats to safety—may become less salient to the overall quality of their experience on the job.

In parallel fashion, the same may be true of staff in their relationships with patients. Staff can seek to elicit their patients’ perspectives on the nature and progress of their treatment and to promote choice making relevant to treatment or to daily life in the institution (e.g., Langer & Rodin, 1976), or not; they can attempt to assess the degree of challenge or of goal progress that patients experience in the clinical environment, or not; and they can attempt to convey warmth and interest in their patients, or not. Each of these choices affects the quality of relationships that staff promote with their patients, either facilitating or undermining patients’ experience of satisfaction of their own psychological needs. The nature of the impact of need satisfaction on important treatment outcomes among young psychiatric patients is still to be determined, but it seems clear, from this and other studies (e.g., Sheldon et al., 2003; Williams et al., 1996; Zeldman et al., 2004), that patients’ motivation to participate in treatment is more internal when they experience warmth and autonomy support from treatment providers. As stated earlier, SDT predicts, and several of the studies cited demonstrate, that more internal as opposed to external motivation for treatment is associated with better compliance with treatment regimes, better clinical outcomes, and greater maintenance of change over time.

Beyond describing a quality of relationship between staff and patient that may have motivational and clinical benefit, the SDT framework also lends itself to application at the level of intervention. To take just one such example, the issue of threat to safety is

particularly germane to the psychiatric population. Because SDT suggests that the experience of control and pressure is generally inhibitory of healthy internalizing processes and often leads to frustration and negative affect, it is possible that de-escalation of a potentially violent situation with a patient may be facilitated by the use of language that is noncontrolling and perspective taking. Use of "Ginottian" language with children and teens (Ginott, 1965), for example, is often cited by advocates as being substantially compatible with the SDT approach as a means to defuse resistant, oppositional-defiant behavior (see also Grolnick, 2003). This suggestion requires further empirical testing, however. Beyond the issue of de-escalation of violence, SDT shares certain theoretical commonalities with the motivational interviewing approach of W. R. Miller and Rollnick (2002), and the implications of these commonalities for intervention and technique are currently being actively explored with various clinical populations (e.g., Zeldman et al., 2004).

The results of the present study suggest the importance of autonomy, competence, and relatedness to the motivation and well-being of psychiatric staff and their potential to affect staff attitudes, program implementation, and treatment of patients. Because SDT presumes that supports for psychological needs are universally critical components of human functioning and well-being, we expect that the results of this study should be broadly generalizable to other clinical settings. Given the risks posed by inpatient psychiatric work, however, a focus on the satisfactions of the job appears to be an important direction for research and intervention. In light of the findings of the present project, the more pertinent answer to the question "How satisfied am I on the job?" may, for psychiatric workers, relate not so much to external demands, rewards, or threats as to internal motivation and psychological needs.

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## Appendix

### Measures Developed for the Study

Participants were asked to respond to items on a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). For each scale, items scores were summed and standardized.

#### *Perception of Threat*

1. I frequently have concerns for my physical safety when I'm on the unit.
2. I worry about being assaulted while I'm on the job.
3. I am afraid of the children that I work with.

#### *Stress Subscale of the Well-Being at Work Scale*

1. I regularly experience too much stress at work.
2. I sometimes experience ethical problems in fulfilling my duties at [name of hospital].
3. The demands at work are too heavy.

#### *Controlling Attitudes Toward Patients*

1. I think we don't exert enough control over the children here to get them behaving appropriately.
2. I believe there are circumstances when it is appropriate to use physical restraints with a child.
3. We give too much freedom to the children here at [name of hospital].

#### *Positive Attitudes Toward the Program*

1. I feel positively about the way we currently provide treatment for the children at [name of hospital].

2. [Name of hospital]'s programs appear to me to be helpful to the children who come here.
3. Overall, the children we are working with seem to be improving in important ways.
4. In general, children leave [name of hospital] better off than they were when they came.
5. I don't see any need to change the current program.
6. The current program is fine the way it is now.

#### *Intrinsic Job Satisfaction*

1. Most days I find my job to be extremely satisfying.
2. I often wish I had a different job. (reverse scored)
3. I feel very positively about my job at [name of hospital].

#### *Extrinsic Job Satisfaction*

1. I am satisfied with my current level of pay and benefits.
2. [Name of hospital] pays its employees fairly.
3. The salary I receive is adequate to the responsibilities I am expected to fulfill.

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