

INMATE EMOTION COPING AND PSYCHOLOGICAL AND PHYSICAL WELL-BEING

The Use of Crying Over Spilled Milk

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The study investigated the relation between coping strategies of inmates and their psychological and physical well-being. General affective states such as optimism were related to both psychological and physical well-being. Moreover, inmates who experienced specific negative emotions such as regret, anxiety, and sadness reported more psychological and physical complaints. The way in which inmates coped with these negative emotions was also important. Inmates who used an active emotion-focused coping strategy were in better health than inmates inclined to keep their negative feelings to themselves. Emotion-focused coping by sharing negative emotions with people in one's social network can help to increase both psychological and physical well-being. Engaging in emotion management in a more cognitive way, by emphasizing positive aspects of the situation, can help to reduce the intensity of negative emotions. Possible research and policy implications of these results are discussed.

Keywords: inmates; emotions in inmates; inmate coping

Behavioral scientists have long been interested in the causes and consequences of psychological well-being among prisoners. The relevance of this issue continues to grow as the number of people imprisoned worldwide increases rapidly. Currently more than 9 million people worldwide are in prison, according to the International Centre of Prison Studies (2005), and almost half of them are in the United States (2.09 million), China (1.55 million), and Russia (0.76 million). As a consequence, prisons become increasingly crowded. Crowding has been related to aggressive behavior in prison context in a number of studies (Cox, Paulus, & McCain, 1984; Paulus & McCain, 1983), and it should come as no surprise that violence in prisons is also on the increase (e.g., Kimmitt, O'Donnell, & Martin, 2002; McCorkle, 1992).

Prison crowding has also been found to be related to reduced levels of psychological well-being (Lawrence & Andrews, 2004; Lepore, Evans, & Schneider, 1991). Psychological well-being is often conceptualized in terms of stress, low self-esteem, loneliness, and depression

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(e.g., Woolredge, 1999). On the other hand, factors that have a beneficial impact on psychological well-being while incarcerated include social integration (Lindquist, 2000), not being victimized (Leddy & O'Connell, 2002), and frequent visitation (Woolredge, 1999). In the present study we focus on the role of emotions associated with being convicted as another factor that may affect well-being. Considering the emotional impact of being sentenced to time in prison, the ability to cope with these emotions could very well be another important predictor of psychological well-being. Emotions often tend to have a long-term impact on our psychological well-being (e.g., Diener, Sandvik, & Pavot, 1991; Fredrickson, 2002); moreover, emotions also have an effect on our physical well-being. Negative emotions such as anger and anxiety are associated with the development of a range of illnesses, such as cardiovascular disease (e.g., Kubzansky & Kawachi, 2000), diabetes (Lustman, Frank, & McGill, 1991), and asthma (Friedman & Booth-Kewley, 1987). Less is known about the effects of specific positive emotions on health. Research on the relation between positive feelings and health tends to focus on more general emotional states such as optimism as opposed to more specific emotions (Salovey, Rothman, Detweiler, & Steward, 2000). An exception is the work by Richman and colleagues (2005), who demonstrated that hope and curiosity are associated with a decreased likelihood of developing diseases such as hypertension and diabetes.

The goal of the present study was threefold. First, we related both psychological and physical well-being of inmates to general affective states, such as optimism and depression, and to established predictors of psychological well-being, such as social integration (Lindquist, 2000). Second, we moved beyond these general emotional states and related well-being to specific emotions such as sadness, joy, anxiety, disappointment, anger, and regret. Third, assuming that the emotions inmates experience are related to their physical and psychological well-being, it was important to examine the most effective way to cope with these emotions. This is supported by research that has shown that structural aspects of confinement, such as overcrowding, are less predictive of psychological health than individual differences in the ways in which inmates cope with prison life (Bonta & Gendreau, 1990). This general ability to cope with confinement is also related to reduced levels of violence (Wright & Goodstein, 1989). Thus, our third goal was to examine how coping with negative emotions associated with confinement might be related to well-being and thus examine the psychological antecedents of well-being on a more detailed level.

The literature on coping shows that the effectiveness of coping style is largely dependent on the situation at hand. For example, it has been shown that coping style in HIV patients was related to progression of HIV (Mulder, de Vroome, van Griensven, Antoni, & Sandfort, 1999); in a healthy sample of medical school students, coping style was related to reduced deterioration of psychological and physiological health (Park & Adler, 2003). In the social psychological literature, a number of strategies are distinguished to regulate negative emotions (e.g., Lazarus & Folkman, 1984): a problem-focused coping style aimed at solving the problem that caused the negative emotions to begin with. This is likely to be less effective for inmates because—with the exception of escape—there are not many behavioral coping strategies available, and one cannot undo the crime. Therefore emotion-focused coping may be more effective under these circumstances. A number of studies showed that emotion-focused coping is more effective than problem-focused coping when participants' controllability of the negative outcomes is low; the former had beneficial impact on psychological well-being, health, and cognitive functioning (Baum & Singer, 1987). The situation of our sample can also be characterized by low controllability, hence our emphasis on the role of emotion-focused coping.

Common wisdom suggests that one should “blow off steam” and not keep one’s negative feelings “bottled up,” and, generally, research tends to confirm this suggestion that a repressive coping style has detrimental consequences for one’s health (see Pennebaker, 1995, for an overview). It has been shown, for example, that inhibition of anger is related to increased mortality and incidence of heart disease and hypertension (e.g., Gallacher, Yarnell, Sweetman, Elwood, & Stansfield, 1999; Julius, Harburg, Cottingham, & Johnson, 1986; Suls, Wan, & Costa, 1995). It has also been shown that the immune system suffers as a consequence of emotion suppression (e.g., Esterling, Antoni, Kumar, & Schneiderman, 1990, 1993).

Emotional expressions that are not in accordance with shared conventions of emotion are evaluated negatively (Sommers, 1984). As a consequence, one could assume that prisoners are particularly vulnerable to the damaging effects of emotion suppression. They may be likely to believe that expressing negative feelings about their confinement will be frowned upon by their fellow inmates and will be taken as a sign of weakness.

In the current study, the effectiveness of emotion-focused coping is examined on different levels, because coping with emotions can come in many different forms. First, we focus on emotion-focused coping in a *social* manner, involving sharing one’s sorrow with others in one’s social network. Previous research on social support has shown that sharing negative feelings has positive consequences for one’s psychological and physical health (e.g., Spiegel, Bloom, Kraemer, & Gottheil, 1989; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). For example, House, Robbins, and Metzner (1982) assessed the level of social support in a large sample of American men and women, and investigated the effects in a longitudinal study. They found that men with a low level of social support were two to three times more likely to die over the next dozen years than men with a high level of social support.

Second, the effectiveness of a more *cognitive* emotion-focused coping is examined, where the perception of the situation is redefined. This latter strategy has been brought forward in the realm of *regret regulation* and has been named *silver lining*. In this line of research, it has been suggested that people sometimes reevaluate a negative outcome or emphasize the positive aspects of a negative event and thus focus on the silver lining that surrounds the darkest cloud (e.g., Gilovich & Medvec, 1995), which should help to take the sting out of the regret and other negative emotions. Thus far, however, the effectiveness of this regulation strategy has not been empirically tested.

In summary, the extent to which psychological and physical well-being are related to general affective states is examined. Second, the role of more specific emotions on psychological and physical well-being is assessed. Third, although emotion-focused coping strategies have been examined extensively, this research emphasized the role of *general* affective states. The present study extends this literature by also trying to gain more insight into emotion-focused coping in relation to *specific* emotions (e.g., sadness, anger, joy, worry, regret) and examine the effectiveness of different types of emotion management.

First, it was predicted that inmates low on psychological well-being will also report decreased physical well-being. Second, inmates who experienced more negative emotions and/or fewer positive emotions would show decreased levels of physical and psychological well-being compared with inmates who experienced less negative emotions and/or more positive emotions. Third, it was expected that inmates who disclosed their negative feelings to others in their social network (i.e., relied on emotion-focused coping and received more social support) would be healthier compared with inmates who chose to suppress their negative feelings. It was also expected that emphasizing positive aspects of the situation (silver lining)

would be related to a reported reduction in feelings of regret and possibly other negative emotions. These predictions were examined through the use of questionnaires and in-depth interviews with inmates.

METHOD

PARTICIPANTS

The current sample consisted of 30 male inmates of two correctional facilities in The Netherlands (Lelystad and Veenhuizen). Participants signed up voluntarily and received a calling card of 10 euros for their cooperation. Their age ranged from 18 to 57 ($M = 32.73$ years, $SD = 10.48$ years). All participants spoke the Dutch language, and 19 participants were of Dutch descent, 4 from Morocco, 3 from The Netherlands Antilles, 1 from Surinam, and three from other countries. Of the sample of 30 participants, 10 were in a long-term relationship with someone outside prison and 20 were not in a relationship. Nine participants reported having children. In terms of the crimes for which they were convicted, 3 participants were serving time for armed robbery, 9 for violent crimes against persons, 5 for dealing drugs, 5 for grand theft, and 3 for other violent crimes. Five participants refused to report their felony. Sentences ranged from 4 months to 12 years ($M = 35.97$ months, $SD = 41.26$ months). The time participants had spent in prison at the time of the interview ranged from 2 months to 9 years ($M = 18.23$ months, $SD = 20.59$ months). The remaining time participants still had to serve ranged from 1 day to 3 years ($M = 7.22$ months, $SD = 8.64$ months).

PROCEDURE

Each participant was invited into an interview room at the penitentiary, where he sat down with the interviewer. Participants were told the research was conducted by the University of Amsterdam and that the interview would be treated confidentially and anonymously. They were told the interview would take approximately 45 minutes and filling out the questionnaire another 10 minutes. The interviewer first asked for permission to make an audio recording of the interview and told the participant he was allowed to end the interview at any time. The interview started and subsequently participants privately filled out the questionnaire. Finally, they were thanked and given a reward for participating.

INTERVIEW

The interview consisted of a number of sections, and took approximately 45 min. In the first section of the interview, we asked participants how they currently felt. In the second, we asked a number of questions about the feelings they experienced when they received their prison sentence. In the third, participants were asked how they felt at the time of the interview. In the fourth, participants were asked about various ways to cope with negative feelings, and finally they were asked a number of questions about demographics, background, and the felony for which they were convicted.

To assess their current feelings, we asked participants to indicate on a scale with responses ranging from 1 to 5 how they generally felt lately—1 (*very bad*) to 5 (*very good*)—and how tense they felt lately—1 (*not tense at all*) to 5 (*very tense*). Regarding the assessment of their

feelings at the time of conviction, we first asked them two open-ended questions: “What feeling did you especially experience when you heard your sentence?” and “What thoughts did you have when you heard your sentence?”

Subsequently they were asked more specifically about emotions they experienced *at that time*, and asked to indicate the extent to which they remember experiencing them on a scale from 1 (*not at all*) to 5 (*very much*). We focused on the emotions disappointment, relief, regret, shame, guilt, and anger. We then asked participants about their feelings and thoughts at the time of the interview. They were presented with the emotions disappointment, relief, regret, shame, guilt, joy, and anger, and were asked the extent to which they currently experienced these emotions on a scale with responses ranging from 1 (*not at all*) to 5 (*very much*).

After this inventory of current and previously felt emotions, respondents were asked about ways in which they tend to cope with negative thoughts or feelings. We first asked them an open-ended question about how they deal with negative feelings, and asked them to indicate to what extent they think this is an effective strategy on a scale with responses ranging from 1 (*not at all effective*) to 10 (*very effective*). Subsequently, we sought to assess thoughts that reflect the use of silver lining thinking (or reevaluation of their situation) by asking participants if they felt there were also positive aspects to the situation. We then asked them about their future intentions after being released and finally about a number of demographics and background factors such as age, nationality, education, crime for which convicted, length of sentence, and number of months already served. Two coders independently coded all transcripts of the interviews. Intercoder reliability was high ($> .90$), and any differences were resolved through discussion.

QUESTIONNAIRE

Participants were presented with a questionnaire that consisted of a number of different measures. First, we measured general optimism by means of Life Orientation Test (Scheier & Carver, 1985). This measure consists of 10 items such as “I am optimistic about my future” and “In general I expect more good than bad things to happen to me.” All items were measured on a 5-point scale with responses ranging from 1 (*disagree*) to 5 (*agree*). For our sample, the alpha of this scale was .62.

Subsequently, participants were presented with a total of 20 emotions and were asked to indicate the extent to which they generally experience them, which were also on a 5-point scale with responses ranging from 1 (*almost never*) to 5 (*very often*). This Positive and Negative Schedule (PANAS; Watson, Clark, & Tellegen, 1988) includes emotions such as sadness, guilt, fear, pride, anxiety, and anger. Next we presented participants with a four-item distress disclosure index (Kahn & Hessling, 2001) measuring the extent to which they are inclined to share their feelings with others. The scale for this measure, like all the subsequent measures in the questionnaire, ranged from 1 (*completely disagree*) to 7 (*completely agree*). The measure includes items such as “If something unpleasant happens to me, I look for someone to talk to.” Alpha for this measure was low in this study (.52).

The extent to which participants were in a position in which they could share their feelings was assessed by means of the UCLA Loneliness Scale (Russell, 1996). This scale consists of nine items such as “I do not have any real friends” and “There are people I can ask for help” and intends to measure the availability of a social network. Cronbach’s alpha of this scale was .83.

TABLE 1: Overview of the Various Measures Administered in the Questionnaire

<i>Scale</i>	<i>Authors</i>	<i>Construct</i>	<i>Items</i>	<i>Sample Item</i>	<i>α</i>
LOT	Scheier & Carver, 1985	Dispositional optimism	10	"I can handle whatever problems come my way"	.62
PANAS	Watson, Clark, & Tellegen et al., 1988	Positive and negative affect	20	"I often feel frustrated"	.81
Distress Disclosure	Kahn & Hessling, 2001	Sharing of negative affect	4	"I prefer not to talk about things that stress me out"	.52
UCLA Loneliness	Russell, 1996	Availability of social network	9	"I do not have any real friends"	.83
Somatic Complaints	Sikkel, 1980	Physical well-being	13	"I often have headaches"	.86
Depressed Mood	Kandel & Davies, 1982	Psychological well-being	6	"I do not have many hopes for the future"	.81
Psychological Stress	Cohen, Kamarck, & Mermelstein 1983	Psychological well-being	7	"During the last month I often was nervous"	.64

Note. PANAS = Positive and Negative Schedule.

Well-being was assessed using a number of different measures. Physical well-being was assessed by asking participants whether they experienced each of 13 somatic complaints, such as fatigue, headaches, and pain at the chest, back, or stomach (Sikkel, 1980). We calculated a measure of somatic complaints by counting the number of complaints participants reported having. Psychological well-being was assessed using (a) the Depressed Mood Scale (Kandel & Davies, 1982), consisting of six items such as "I often am too tired to do anything" and "I often feel unhappy, sad and depressed" (Cronbach's $\alpha = .81$) and (b) the Psychological Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), consisting of seven items such as "Lately, how often have you had the feeling that you could not cope with the things you had to do?" and "During the last month, were you tense or nervous?" (Cronbach's $\alpha = .64$).¹ Table 1 lists all of the scales used in the present research and provides summary information about each of the scales.

RESULTS

EMOTIONS AND WELL-BEING

Psychological well-being and physical well-being were expected to be related to one another. Results show that both psychological stress ($r = .65, p < .001$) and depressed mood ($r = .70, p < .001$) were related to the Somatic Complaints Index. Moreover, we expected well-being to be related to general as well as more specific emotional states. Therefore, we examined how positive and negative affect and emotions as reported in the interview and the questionnaire relate to well-being. Results indicated that optimism was negatively correlated to indices of psychological stress ($r = -.43, p = .02$), depressed mood ($r = -.38, p = .04$), and physical well-being ($r = -.41, p = .03$). Interestingly, when correlating the averaged positive emotions (PANAS) with well-being, we found no significant correlations, but when doing the same for the negative emotions, we found significant correlations

with psychological stress ($r = .49, p = .008$), depressed mood ($r = .54, p = .003$), and physical well-being ($r = .46, p = .014$).

We examined which specific emotions were most predictive of well-being by performing three hierarchical regressions. First, we entered the 20 positive and negative emotions and the emotions assessed in the interview into a regression with psychological stress as a dependent variable. Findings revealed a statistically significant model, $F(4, 17) = 11.37, p < .001$, which included four emotions: sadness ($\beta = .58, t(24) = 4.48, p < .001$); anxiety ($\beta = .49, t(24) = 3.73, p = .002$); disappointment ($\beta = .31, t(24) = 2.42, p = .027$); and regret ($\beta = .29, t(24) = 2.20, p = .042$).²

Next, the same analyses were performed with depressed mood as a dependent variable. Here anxiety ($\beta = .54, t(24) = 3.36, p = .003$), and sadness ($\beta = .38, t(24) = 2.33, p = .031$), came forward as the parameters included the model, $F(2, 23) = 10.42, p = .001$. Finally, for physical well-being, the model, $F(2, 22) = 7.66, p = .004$, included fear and worry: ($\beta = .53, t(24) = 3.07, p = .006$ and ($\beta = .38, t(24) = 2.18, p = .042$, respectively). It should be noted that the number of variables in these regression analyses is rather large for the current sample size. On the other hand, it is reassuring that the three analyses revealed a similar pattern in the sense that the negative emotions are most predictive of the three related psychological states. This pattern shows that psychological and physical well-being are affected by specific negative emotions, while positive emotions do not have such an impact.³

COPING STRATEGIES

Psychological and physical well-being were expected to be related to the use of emotion-focused coping. We expected that an active, emotion-focused coping strategy would be more effective in reducing negative emotions. Participants were asked what they did to deal with negative feelings. Half ($n = 15$) indicated that they engaged in relatively passive forms of coping, such as wanting to be left alone, trying to shut out any thoughts, and watching television. The remaining 15 participants said they engaged in more active coping strategies, such as talking to fellow inmates or family about their worries or thinking about what they had learned from this experience. On the scale measuring the subjective intensity of emotions (PANAS), the former group reported feeling more guilt ($M = 2.93, SD = 1.28$) as compared with the latter group ($M = 2.08, SD = 1.19$), $t(26) = 1.83, p = .039$, one-tailed. This former "passive" group also reported feeling more fear ($M = 1.93, SD = 0.80$ vs. $M = 1.46, SD = .52$), $t(26) = 1.82, p = .040$, one-tailed, and being less alert ($M = 3.73, SD = 1.10$ vs. $M = 4.38, SD = 0.51$), $t(26) = 2.06, p = .026$, one-tailed. In the interview, the participants using a passive coping strategy also reported higher levels of regret ($M = 3.36, SD = 1.55$ vs. $M = 2.27, SD = 1.71$), $t(26) = 1.80, p = .042$, one-tailed.

The subjective effectiveness of participants' preferred coping strategy was related to physical and psychological well-being, as indicated by the significant negative correlations of the effectiveness ratings with the Somatic Complaints Index ($r = -.53, p = .007$) and the Depressed Mood Scale ($r = -.40, p = .04$). Interestingly, this subjective effectiveness of the coping strategy showed only a weak relation to dispositional optimism ($r = .29, p = .16$), suggesting that believing one can deal with negative emotions is not merely the result of generally feeling capable of dealing with negative things.

Previously, we distinguished between emotion-focused coping through sharing one's sorrow with others on the one hand and a more cognitive kind of emotion-focused coping,

which involved emphasizing silver linings. In relation to the former, we examined the availability of a social network and the inclination of inmates to actually use this social network to share negative feelings. First, the scores on the Social Network Scale appeared to be related to psychological stress ($r = .40, p = .03$), depressed mood ($r = .42, p = .03$), and physical well-being ($r = .48, p = .01$). This suggests that the lack of a social network (loneliness) is related to reduced levels of psychological and physical well-being. Subjective well-being of participants who were inclined to talk about their problems was better than that of participants who were not, as indicated by the negative correlations of the Distress Disclosure Index with psychological stress ($r = -.39, p = .04$), depressed mood ($r = -.42, p = .03$), and physical well-being ($r = -.46, p = .01$).

The more cognitive emotion-focused coping strategy we examined was putting emphasis on silver linings of the incarceration. This strategy has theoretically (but not empirically) been brought forward as a means to reduce feelings of regret (Gilovich & Medvec, 1995). In the interview, participants were asked about the extent to which they emphasized positive aspects of the situation. We related the use of this silver lining strategy to their self-reported change in the experience of regret by calculating a difference score based on the regret inmates said they experienced *at the time of their conviction* and the extent to which they experienced these emotions *at the time of the interview*. While 10 participants saw no positive aspects whatsoever, the remaining 20 participants said they had gained something from the experience. As one inmate put it: "I have got to know myself better and when I will be released I will have more appreciation for freedom. Also now I know better what *not* to do and this will help me to more adequately raise my children."

Participants who indicated they had learned something from their time in prison showed a significant decrease in feelings of self-reported regret ($M = -0.84, SD = 1.38$) as compared with the participants who said they had not learned anything ($M = 0.10, SD = 0.32$), $t(27) = 2.83, p = .01$.

Only 7 inmates actually said in the interview that after their release they would consider returning to their previous illegal ways to secure their income. Because of the limited size of this sample, it is difficult to say anything meaningful about this effect. Interestingly, this group reported somewhat more complaints ($M = 4.29, SD = 4.15$) than inmates who intended to obey the law ($M = 2.79, SD = 3.05$), but given the size of the former group, it is not surprising that this effect did not reach significance level, $F(1, 24) = 1.02, p = .32$.

DISCUSSION

In the present study, we examined the relation between emotions and physical and psychological well-being among inmates. Generally our expectations were confirmed in the sense that our results indicate that psychological and physical health are closely related and that both can be influenced by the intensity of negative emotions. Moreover, well-being can benefit from an emotion-focused coping strategy. This can be through sharing one's emotions with other inmates or relatives, but also through cognitively reframing the incarcerated situation (and its antecedents) such that it becomes less unpleasant. Our results show that psychological well-being (depression and psychological stress) is related to physical well-being, a finding that is very much in accordance with the clinical literature on general emotional states (i.e., depression, anxiety) and health.

The second important finding concerns the effects of specific emotions on psychological and physical well-being. The current study shows that more specific emotions (a number of the negative emotions measured with the PANAS, and disappointment and regret as assessed in the interview) are also related to both psychological and physical health.

Because of the relation we found between specific negative emotions and physical and psychological well-being, it seems especially important to cope adequately with these negative emotions. As described previously, there is a wide range of coping strategies that one can use to deal with negative emotions. The present study shows that inmates who are more inclined to share their negative emotions with others are in better health than those who keep them to themselves. To be able to share negative emotions or feelings, one does of course need a social network and as one would expect the extent to which people have such a network is also related to physical and psychological health. This social network allows one to deal actively with negative feelings through sharing, which has been shown to be more beneficial to one's health. The present study has focused on negative emotions and is in accordance with the existing literature on the beneficial effects of social support. People with a coping style allowing (providing and receiving) social support have improved mood, better psychological well-being, and improved health. Future research should examine whether sharing positive emotions is similarly important.

Similarly, the data obtained in the interview indicate that trying to suppress negative feelings can have adverse consequences. Inmates who said they preferred to watch television or just generally wanted to be left alone when they felt badly experienced more negative emotions and fewer positive emotions as compared with those who said they used more active coping strategies such as talking to others or thinking about what they have learned from this experience.

Our investigation into how exactly emotion-focused coping may help regulate specific emotions shows that emphasizing the positive aspects of the situation and thus engaging in silver lining thinking can also be effective. Participants who indicated they had learned or in any other way gained something from their time in prison said that their feelings of regret have decreased since their conviction. Participants that failed to see anything positive about their conviction reported no such decrease. This finding supports and extends earlier work on regret management. Gilovich and Medvec (1995) suggested that looking for silver linings may help reduce regret, but there has been no direct empirical evidence for the effectiveness of this strategy.

Despite the effects of sharing one's feelings and looking for silver linings, it appears that merely the belief that one's coping strategy works also has beneficial effects on one's well-being. The subjective effectiveness of one's coping strategy is directly related to one's physical and psychological well-being. This suggests the importance of having a sense that one can adequately deal with the negative feelings that can accompany incarceration. It appears that this sense of coping efficacy is quite specific, and not just the result of a more general feeling of optimism and beliefs about one's ability to overcome obstacles in life, because there was no significant correlation with optimism.

A number of limitations of the current study need to be mentioned. First, our reliance on a strictly correlational design does not allow us to make any firm inferences about causal relations. We therefore cannot be sure, for example, that lacking a social network causes a decrease in well-being; it could also be the other way around. However, the existing literature on social support and well-being has shown that being able to share one's sorrow with

others does predict psychological (Cohen & Wills, 1985; Spiegel et al., 1989) and physical well-being (House et al., 1982; Uchino et al., 1996). In this light, we believe it is reasonable to assume a similar causal direction in our present study.

Although we did ask inmates to bring to mind the intensity of their emotions at the time of their conviction, it would be preferable to examine these research questions in a longitudinal design. More specifically, it would be interesting to measure the well-being and emotions of inmates when entering prison, as well as their intended coping strategies. In a later stage, one could assess the effectiveness of various coping strategies with a second measure of emotions and well-being.

Despite these limitations, we believe these findings have applied value in the sense that providing prisoners with the appropriate tools to deal with their negative feelings can help enhance their well-being. How to implement these tools effectively depends partly on the personality of the prisoner; there is unlikely to be a strategy that works equally well for everyone. It does appear, however, that facilitating social integration can help. Before one can blow off steam by sharing negative emotions, one does of course require some kind of social network. Sharing a cell with a fellow inmate could provide such a "network," albeit a very small one. This shared cell approach has always been common practice in the United States, whereas other countries have only recently, and quite hesitantly, experimented with housing two inmates in one prison cell. The results of the present study suggest that prisoners who are inclined to share their feelings might well benefit from such a shared-cell approach. Inmates with less of such an inclination probably benefit more from an approach in which they are provided with opportunities to gain something from their time in prison (e.g., in terms of education). Thus, increasing the well-being of prisoners may help to reverse the cycle of decreased well-being and increased violence.

Of course regret is not the only emotion that inmates experience as a result of their incarceration. As a consequence, the use of silver lining thinking is not the only potentially useful emotion-focused coping strategy that (indirectly) can help increase well-being. Future research investigating other potential tools that prisoners may use to cope with negative emotions is therefore necessary.

NOTES

1. For some of the scales, alphas are quite low. This is probably due to the combination of a relatively small sample and a scale with only four items. For example, using a much larger sample, Kahn and Hessling (2001) reported highly reliable alphas for their distress-disclosure scale. Similarly, Cohen, Kamarck, and Mermelstein (1983) reported reliable alphas for their measure of psychological stress.

2. Anxiety is one of the emotions measured in the Positive and Negative Schedule (PANAS), and the measure of psychological stress also includes an item about anxiety, suggesting concerns about collinearity. However, excluding the measure of anxiety from the PANAS did not affect the correlation between the negative PANAS and psychological stress. Similarly, the regression model with sadness, regret, and disappointment and without anxiousness is also significant.

3. We analyzed whether or not any of the effects on well-being was associated with the length of the sentence, the amount of time served, or the remaining length of the sentence; analyses showed that this was not the case.

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