After the Final Snap: Cognitive Appraisal, Coping, and Life Satisfaction Among Former Collegiate Athletes

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Lazarus and Folkman's (1984) cognitive model was used to examine the effect of retirement from intercollegiate football. Former players experienced both positive and negative emotions, reported different levels of personal control, and used a variety of coping strategies that were related to life satisfaction. The appraisal process was a stronger predictor of life satisfaction, following intercollegiate football retirement, than the use of any specific coping strategy.

Athletes who compete at the intercollegiate level must dedicate enormous time and energy to their sport. Meetings, practices, weight training, competitions, and travel often can take 30 to 50 hours of an athlete's time per week (Sage, 1987). This time commitment requires athletes to adjust their daily schedules around their sport not only during the season but also in the off-season. This intense personal commitment contributes to the athlete's life being strongly intertwined with sport participation. Many athletes' personal relationships are with other athletes who have similar goals and objectives in sport (Lanning, 1982). These relationships are an important part of the athletes' social support system and can affect their sense of personal identity and social status. Continued involvement in sport also can leave athletes with the feeling that the only aspects of their lives with any structure are sport participation and sport-related activities. Although many athletes become accustomed to the demands of an athletic career and are willing to commit the time and energy to reach their personal athletic goals, many may not be prepared for the dramatic changes that occur upon retirement from sport (McInally, Cavin-Stice, & Knoth, 1992).

Sport retirement requires athletes to make adjustments in their lives, including changes in their goals, personal relationships, sense of personal identity, and social status (Orlick & Werthner, 1987). Many athletes even lose their feelings of personal worth once they are unable to continue their athletic careers (Lanning, 1982). These changes, and the consequent adjustments, can be stressful for many athletes (Coakley, 1983) and can also result in changes in an individual's life satisfaction without sport (Werthner & Orlick, 1986).

Although research confirms that sport retirement can be stressful (Svoboda & Vanek, 1982), little is known about the emotional impact of the changes associated with ending a sport career. Werthner and Orlick (1982) suggested that the intensity and duration of stress associated with sport retirement will be different

for each athlete. Baillie and Danish (1992) came to a similar conclusion in their review of the sport retirement/transition literature. Baillie and Danish reviewed the sport retirement/transition literature from a lifespan development perspective. recognizing the importance of athlete identity formation in children and adolescents, the impact of continued sport participation on one's self-identity, and how these issues influence the various responses individuals may have to ending a sport career. Drawing from the limited information available, intervention models (e.g., Baillie, 1993) have been suggested to assist in sport retirement preparation and to help athletes with the transition out of sport. However, little research is available to assist in intervention development concerning sport retirement's affect on individual cognitive appraisal and coping at the end of a sport career (e.g., Svoboda & Vanek, 1982). A recent study (Sinclair & Orlick, 1993), did examine individual coping strategies of athletes following retirement from competitive sport. This study identified strategies considered helpful (e.g., "finding another focus of interest") and others considered not helpful (e.g., "drinking alcohol/drugs") immediately following retirement from international sports. Sinclair and Orlick's study also indicated that 74% of the former athletes were generally satisfied with their post-sport lives and 11% were dissatisfied with their lives without competitive sport participation. However, this investigation and other research has neglected to use a solid theory-base when studying these variables and has not examined the relationships between cognitive appraisal and coping with individuals' life satisfaction following sport retirement.

Lazarus and Folkman's (1984) process model of stress emphasizes that the responses to stress depend on the relationships among the person, the environment, and the individual's coping resources. These relationships affect perceptions of stress and whether the situation is interpreted as positive or negative. The four key components of the process model of stress are (a) primary appraisal, (b) secondary appraisal, (c) coping, and (d) reappraisal. Primary appraisals include both anticipatory and outcome perceptions. Anticipatory appraisal is made prior to events or before the completion of an event's outcome and involves whether or not the individual perceives the situation as a threat or a challenge. Primary appraisal of outcome concerns whether the outcome of an event is perceived to be harmful or beneficial. Secondary appraisal involves the individual's perception of what can be done in a situation, including feelings of personal control.

According to the Lazarus and Folkman (1984) model, each person will appraise individually the threat, challenge, harm, and benefit associated with the situation; the actions that can be taken; and their control over the situation. Individuals' primary and secondary appraisals of the situation affect how they respond, the emotions they experience, and the coping behaviors they are likely to exhibit.

Coping is defined as "constantly changing cognitive and behavioral efforts to manage specific external and or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). Coping responses have been grouped into two general categories: (a) problem-focused coping (PFC) and (b) emotion-focused coping (EFC). PFC is used when the stressor can be reduced or eliminated, and is similar to problem-solving. PFC, however, is not limited to external changes or alterations in the environment. PFC strategies include

changing motivation, developing new skills, and developing a new standard of behavior. EFC refers to cognitive processes that are used to decrease the emotional distress associated with an encounter, and are used primarily when individuals feel they have little or no control over a situation. Possible EFC strategies include emphasizing the positive, denial, and selective attention toward or away from the stressor.

Reappraisal follows the initial cognitive appraisal and coping attempts, and utilizes new information and changes in person-environment relationships. In a continuing process, reappraisal results in modifications of earlier appraisals and influences future coping efforts.

Lazarus and Folkman's (1984) cognitive model of stress, appraisal, and coping provides a possible framework to better understand athletes' reactions to sport retirement and the impact on their life satisfaction after sport. The purpose of this investigation is twofold: (a) to identify the appraisal and coping responses of players who have recently retired from collegiate football and (b) to investigate how these appraisals and coping strategies are related to former players' life satisfaction. Specifically, two hypotheses were investigated to assess the relationships among primary appraisal, secondary appraisal, coping, and life satisfaction among former collegiate football players. The first hypothesis was that primary appraisal, secondary appraisal, and coping are positively correlated with life satisfaction at the time of their retirement from sport. The second hypothesis was that primary appraisal, secondary appraisal, and coping are positively correlated with life satisfaction several months following sport retirement.

Method

Participants

Ninety-two former players at 18 participating National Collegiate Athletic Association Division I-A and I-AA universities were contacted and 77 agreed to participate. Data were collected from 53 of the 77 former players who agreed to participate, although one questionnaire was unusable because of missing data. This resulted in the final sample of 52 former collegiate football players, a 69% return rate of useable questionnaires distributed. The average age of respondents was 22.9 years. Retirement from football had occurred between 2 and 24 (M = 7.7) months prior to data collection.

Procedure

After receiving approval by the university research review committee, athletic department staff (i.e., academic counselors, coaches, and sport psychologists) at 24 universities were sent a copy of the *Intercollegiate Football Retirement Questionnaire* (IFRQ), a booklet assembled for this study, and a formal letter requesting their assistance in collecting information from all football players who had ended their collegiate football careers less than nine months ago. A follow up phone call was then made to confirm cooperation. Eighteen of the 24 universities agreed to participate. Staff members were sent between 4-30 IFRQs to administer to former collegiate football players at their respective universities. A follow up letter and a "return rate" postcard were also sent to all cooperating staff members.

After completion, the IFRQs and the return rate postcards were returned to the investigator for analysis. IFRQs returned also included responses by former collegiate football players who had ended their collegiate football careers more than nine months ago. These data were retained in the analysis to increase the overall sample size.

Instrumentation

Intercollegiate Football Retirement Questionnaire (IFRQ). This self-report booklet was developed for the present investigation and contained an informed consent page and three assessment sections. Section one assessed demographic information, personal control ratings, and life satisfaction ratings; section two included the General Emotion Scale (Folkman & Lazarus, 1985); and section three consisted of the COPE inventory (Carver, Scheier, & Weintraub, 1989).

Demographic information, personal control ratings, and life satisfaction ratings. The first section assessed former players' demographic information and feelings of personal control (i.e., secondary appraisal) and overall life satisfaction ratings immediately following retirement from collegiate football and at the time of questionnaire completion. General questions concerning age and months since last collegiate football game used a completion format. The life satisfaction and feelings of personal control questions, from Werthner's (1985) Elite Athlete Retirement Interview Schedule, used a Likert-style format, ranging from 1 (the pits/ not at all in control) to 10 (perfect/totally in control).

The numerical responses to the feelings of personal control at time of retirement comprised the Retirement Personal Control variable, the numerical responses to the feelings of personal control at the time of questionnaire completion constituted the Present Personal Control variable. Retirement Personal Control and Present Personal Control represent secondary appraisals at two different times in the retirement transition. The numerical responses to the life satisfaction items at time of retirement comprised the Retirement Life Satisfaction variable, the numerical responses to the life satisfaction items at the time of questionnaire completion constituted the Present Life Satisfaction variable.

General Emotion Scale (GES). The GES (Folkman & Lazarus, 1985) was designed to assess primary appraisal by measuring the emotions of harm, benefit, challenge, and threat experienced in various encounters. The items for harm are angry, disappointed, and guilty. Items for benefit are pleased, happy, and relieved. Items for challenge are confident, hopeful, and eager. Items for threat are worried, fearful, and anxious. The GES was adapted to assess these emotions, specifically with regard to athletes' experiences since retiring from collegiate football. Participants responded to the 15 items on 7-point Likert scales ranging from 1 (not at all) to 7 (a great deal). The reported alpha reliability coefficients for the 5-point version of the GES are .80 for threat, .59 for challenge, .78 for benefit, and .84 for harm (Folkman & Lazarus, 1985, p. 154). The Positive Emotion variable was indicated by the combined score of the seven challenge and benefit items. The Negative Emotion variable was indicated by the combined score of the eight harm and threat items. Positive Emotion and Negative Emotion represent primary appraisals throughout the retirement transition.

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COPE. The 60-item COPE (Carver et al., 1989; Carver & Scheier, 1994) was used to assess 15 possible strategies that individuals may use to cope with various situations they encounter in their lives (e.g., sport retirement). Problem-focused coping was indicated by four variables: (a) active planning, (b) suppression of competing activities,(c) restraint coping, and (d) seeking of social support. Emotion-focused coping was indicated by five variables: (a) positive reinterpretation, (b) acceptance, (c) denial. (d) use of religion, and (e) humor. Less-effective coping was indicated by four variables: (a) focus on and venting emotions, (b) behavioral disengagement, (c) mental disengagement, and (d) alcohol/drug use. Participants responded to items on four-point Likert scales from 1 (didn't do at all) to 4 (did a lot). The alpha reliability coefficients for the COPE scales ranged from .45 for mental disengagement to .92 for turning to religion. However, mental disengagement was the only scale to drop below .62. Test-retest reliability estimates after two months ranged from .46 for suppression of competing activities to .86 for turning to religion. The means for the 15 coping strategies ranged from 12.58 for planning to 5.52 for alcohol and drug use (Carver et al.). The average score of the items in the three coping categories (i.e., problem-focused, emotion-focused, and less-effective) represent coping strategies used throughout the retirement transition.

Results

In order to assess the relationship between appraisal and coping and life satisfaction, two separate simultaneous multiple regression analyses were used. These analyses assessed which variables among primary appraisal, secondary appraisal, and the three coping strategies predict retirement life satisfaction and present life satisfaction (See Table 1).

TABLE 1 Intercorrelations Among the Nine Variables with Means and Standard Deviations											
Variables	1	2	3	4	5	6	7	8	9		SD
1. PEMOT	_	13	.21	03	03	.08	11	.35*	.00	4.5	1.0
2. NEMOT		_	02	26	.48*	.13	.39*	28*	40*	3.7	1.1
3. CONTA			—	.37*	.03	.20	10	.64*	.11	7.7	1.9
4. CONTP				_	04	.08	.05	.34*	.20	8.6	1.4
5. PCOPE						.58*	.52*	02	.07	8.7	2.1
6. ECOPE						_	.28*	.18	.16	9.5	1.7
7. LCOPE								08	04	7.2	2.0
8. LIFEA								_	.35*	6.8	2.3
9. LIFEP									_	7.1	2.2

Note: PEMOT = positive emotions, NEMOT = negative emotions, CONTA = control after retirement, CONTP = control at present, PCOPE = problem-focused coping, ECOPE = emotionfocused coping, and LCOPE = less-effective coping, LIFEA = life satisfaction after retirement, LIFEP = life satisfaction at present.

Life Satisfaction Hypotheses

The first multiple regression analysis entered three of the appraisal measures (i.e., Positive Emotion, Negative Emotion, and Retirement Personal Control) and the three coping strategies simultaneously as predictors of life satisfaction immediately after football retirement. With an alpha level of .05, the obtained multiple regression coefficient was .80 and was statistically significant, F (6,36) = 10.45, p < .05. This multiple R is considered a large effect size by Cohen's (1977) criteria. The multiple R^2 indicated that 64% of the former football players' life satisfaction ratings at the time of retirement is related to their appraisals and coping with retirement from collegiate football.

Examination of the standardized beta weights indicates that only negative emotions and feelings of personal control were statistically significant in predicting life satisfaction scores immediately after retirement, (Bs = -.26 and .69, p < .05, for negative emotions and feelings of personal control, respectively). These regression weights suggest that former football players with high reports of life satisfaction after football experienced fewer negative emotions and felt greater control over their personal lives than former players who reported lower life satisfaction scores immediately after ending their collegiate football careers.

The second multiple regression analysis entered the same two primary appraisal measures (i.e., Positive Emotion and Negative Emotion) and the current secondary appraisal measure (i.e., Present Personal Control) and the three coping strategies simultaneously as predictors of life satisfaction at the time of questionnaire completion. The obtained multiple regression coefficient was .42, which was not statistically significant at the .05 level, F(6,35) = 1.26, p = .06. However, this multiple R, .42, is considered a medium effect size (Cohen, 1977). The multiple R^2 indicates that 18% of the former players' life satisfaction ratings at the time of questionnaire completion is related to their appraisals and coping with retirement from collegiate football. Specifically, Negative Emotions was the variable accounting for the highest variance in the predicted life satisfaction scores at the time of questionnaire completion, (B = -.41 for Negative Emotions). These statistics suggests that former football players with high reports of life satisfaction after football experienced fewer negative emotions than former players who reported lower life satisfaction scores several months (M = 7.7) after ending their collegiate football careers.

Discussion

This investigation was designed to assess the appraisal and coping responses of players who had recently retired from collegiate football and the relationship between these variables and life satisfaction during the transition from collegiate football. The appraisal process was a stronger predictor of life satisfaction than the use of any specific coping strategy. Primary appraisal addresses whether the outcome of an event is perceived to be harmful or beneficial (Lazarus & Folkman, 1984). The negative appraisals in this study were assessed by identifying the emotions experienced after completing their college football experience. Negative appraisals were assessed by the feelings of anger, disappointment, guilt, worry,

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fear, and anxiety. Experiencing few negative emotions was the best predictor of life satisfaction ratings several months after ending collegiate football careers. Experiencing few negative emotions and having high feelings of personal control were the best predictors of life satisfaction ratings immediately after ending collegiate football careers.

Secondary appraisal involves the individual's perception of what can be done in a situation, including feelings of control and perceived resources available (Lazarus & Folkman, 1984). Terminating a collegiate sport career can be viewed as a negative experience without much control over whether or not the termination occurs (Werthner & Orlick, 1986). In sport termination situations it may be important to be able to feel fewer negative emotions and more control in order to be satisfied with life immediately following termination. This may especially be the case given that college athletes have limited control while participating in the sport and limited control over when their college sport career is terminated (Werthner & Orlick, 1986).

In a broader context, Lazarus and Folkman's (1984) model suggests that the appraisal process is affected by the coping and reappraisal an individual goes through when confronted with a situation. The current study did not collect data that provided specific information on how the coping process impacted reappraisal of the sport retirement process. Therefore, it is difficult to speculate on the appraisals in this study, other than it appears that the coping strategies used impacted the appraisal process and allowed individuals to feel satisfied with their lives.

The results in the current study are similar to Curtis and Ennis' (1988) findings for former elite hockey players. Former hockey players in their study were more satisfied with their lives than the general sample, but 75% of the hockey players expressed at least some negative feelings after retiring from their sport. Research has also indicated that sport retirement requires athletes to make adjustments in their goals, personal relationships, sense of personal identity, and social status (Orlick & Werthner, 1987). In selecting Lazarus and Folkman's (1984) appraisal and coping model to study sport retirement, it was assumed that the transition from collegiate football would cause former players to experience various emotions, make countless appraisals, and result in them using numerous coping strategies in order to deal with their emotional responses to sport retirement. The results of these analyses support those assumptions and provide initial information on some of the possible relationships among appraisal, coping, and life satisfaction that occur in retirement from football. It also appears that the former players in this study were at least attempting to cope with their sport retirement through their reported use of various coping strategies. However, it is unclear if they had effectively coped with their retirement from collegiate football, although, slight increases reported in feelings of personal control and life satisfaction several months following sport retirement suggest they were making successful adjustments. As in previous research (Svoboda & Vanek, 1982), some former athletes may have coped immediately with sport retirement, whereas, others may take several years to adjust to the end of their athletic careers.

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Conclusions

This study was able to provide support for the applicability of Lazarus and Folkman's (1984) model of appraisal and coping to the sport retirement process. Former players experienced both positive and negative emotions, and reported different levels of personal control, while using a variety of coping strategies during their retirement from playing collegiate football. This study also assessed appraisal and coping strategies associated with life satisfaction after retirement from collegiate football. The various coping strategies reported by individuals suggest that unique evaluations of sport retirement may require different types of actions or responses in order to effectively deal with the emotions experienced during this transition. The complex relationships involved in the appraisal and coping process may, in turn, relate to higher life satisfaction ratings for individuals.

Implications for Student-Athlete Support Services

Those involved in the delivery of support services are devoting increased attention to issues of life satisfaction (Dencker, 1993) and the financial constraints influencing service delivery (Dworkin & Lyddon, 1991). Changes such as these make it important to use all available information to ensure that the most appropriate and efficient services are provided to current and former student-athletes. Frankenhaeuser (1977) has suggested that the use of individuals' subjective evaluations of their overall life satisfaction or quality of life is necessary in service and treatment decision-making processes. Results from this investigation provide support service personnel with a clearer understanding of the dynamic relationships that may exist between appraisal and coping variables and life satisfaction following sport retirement. For example, the appraisal process appears to be a stronger predictor of life satisfaction than the use of any specific coping strategy used in dealing with sport retirement. Understanding these complex relationships, with attention to the student-athletes' appraisal of sport retirement, should allow support service personnel to better meet the needs of their student-athletes in a time of limited resources.

From a psychoeducational perspective, the results of this study should be helpful in the formation of programs targeted at developing effective appraisal and coping skills for individuals. The findings suggest it is not necessarily the type of strategy one uses in coping with sport retirement that matters, as long as the coping is helpful in decreasing the negative emotions associated with the appraisal of ending one's sport career. Prevention programs that prepare individuals to address changes they will experience once they end their collegiate sport career may be helpful in the process of coping with the negative emotions (e.g., sadness, anger, and guilt) associated with sport retirement, increase the positive emotions (e.g., confidence, hope, and happiness), and increase an individual's belief in their coping potential (i.e., secondary appraisal) without involvement in competitive sports. These programs can accomplish this by providing information about the coping process and identifying how individuals' appraisals and coping strategies can negatively impact their life satisfaction. Once individuals gain this knowledge about themselves, they can work on transferring the skills

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they have developed through participating in sports, while continuing to acquire new appraisal and coping skills that will hopefully lead to an increase in ratings of life satisfaction.

Future Directions

The results of this investigation are limited by the one time retrospective data collection and a nonrandom sample of former collegiate football players. In order to get a clearer representation of the possible cognitive appraisal and coping that occur during the sport retirement process, future investigations need to take multiple intraindividual measurements of appraisal and coping variables at various points during the retirement transition such as mid-season, immediately following the last game, 3-6 months later, and 9-12 months after ending their sport career (Folkman & Lazarus, 1985, 1988) in order to address this complex relationship. Instruments also need to be used to measure what specific aspects of sport retirement are considered positive and negative (e.g., Williams-Rice & Burton, 1990). As suggested by Lazarus and Folkman (1984), a major life event such as sport retirement cannot be considered stressful by itself without knowing how each individual appraises their specific retirement situation and what impact this process has on life satisfaction. Despite its limitations, results from this study suggest that Lazarus and Folkman's cognitive model of appraisal and coping is helpful in better understanding the variables that influence individuals' life satisfaction in the context of complex processes such as sport retirement.

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