

How sport consumers cope with a loss: a multi-group analysis by psychological importance

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Abstract

Purpose – This study examines sport consumer coping (after a loss) as a person-environment transaction based on the transactional theory of stress and coping. With psychological importance (of a win) set as a boundary condition, psychological needs (i.e. arousal, achievement, social) unfulfilled after a loss are investigated as predictors of coping strategy selection and key coping strategies' (i.e. positive thinking, emotional venting, emotional support, avoidance) effects on negative affect are assessed to understand coping effectiveness.

Design/methodology/approach – Targeting supporters of the losing team in Super Bowl LIII, data were collected from a three-wave survey (i.e. before, immediately after, 1-day after a loss) and analyzed with multi-group SEM (high vs. low psychological importance groups) to explore/compare the relations among need unfulfillment, coping strategies and negative affect.

Findings – Meaningful associations among need unfulfillment, coping strategies and negative affect are reported, with patterns of associations being distinctive based on levels of psychological importance (e.g. more active coping in the high group, distinction more notable for arousal and social unfulfillments). Emotional venting (in the high group) and emotional support (in the low group) are identified as effective, whereas avoidance is counter-productive (in both groups).

Originality/value – Examining coping as an ongoing, complex and conditional process, this study paints a more holistic picture of sport consumer coping. Novel insights are offered on coping strategy selection/effectiveness and the moderation of psychological importance. Findings inform strategies to facilitate sport consumer coping that can help develop long-term consumer relations based on more positive (or less negative) experiences.

Keywords Coping, Need unfulfillment, Sport consumer well-being, Multi-group analysis,

Psychological importance

Paper type Research article

Think about a sport team you root for. Recall when that team lost whether with playoffs at stake, in the finals, against a rival or in regular season. Shame, resentment, anxiety, sullenness and anger are examples of negative affect you probably experienced (Kerr *et al.*, 2005). Such negative reaction to a loss is an unavoidable mental burden for sport consumers that needs to be dealt with or else may result in negative impact on well-being (e.g. violence, depression). Understanding how sport consumers process the negative reaction/impact and finding ways for its mitigation are critical for providing more positive (or less negative) sport experiences to improve sport consumer well-being and build long-term consumer relationships.

Sport consumers can adopt the psychological process of coping as a defensive mechanism against loss-associated negativities, which is “thoughts and behaviors used to manage internal



and external demands of situations that are appraised as stressful” (Folkman and Moskowitz, 2004, p. 745). Studies were conducted on coping strategies such as shifting focus, seeking support and CORFing (i.e. Cutting Off Reflective Failure) (e.g. Doyle *et al.*, 2017; Kwon *et al.*, 2008). Based on social identity theory and team identification, the studies explain how a loss of one’s team can result in psychological burdens and activate coping mechanisms. In these studies (e.g. Delia, 2017; Wann, 2006), researchers emphasize coping should be approached as an ongoing process that happens over time, a complex process where strategies are selected from diverse options and often in conjunction, and conditional on variations in behavior/outcome. However, there is a void of studies assessing sport consumer coping across time, multiple strategies simultaneously and boundary conditions affecting strategy selection/effectiveness.

The transactional theory of stress and coping (Lazarus and Folkman, 1984) can be a promising framework for investigating coping as an ongoing, complex and conditional process. The theory conceptualizes coping as a process that goes through primary appraisal (assessing the threat), secondary appraisal (assessing response options) and execution (responding); variations in process occur based on personal (e.g. value, goal, commitment) and situational (e.g. severity, circumstance, control) factors.

Applying the transactional theory to the sport context, a loss of one’s team can be perceived as a psychological threat, prompting sport consumers to seek viable coping options (e.g. positive thinking, emotional venting) and select/activate the most effective one(s); assessing this entire process and multiple coping strategies can avail a more complete picture of sport consumer coping. The circumstance of losing (e.g. game quality, dissatisfaction) can be a situational factor (Card and Dahl, 2011), dictating felt threat levels. According to need theory, fulfillment of psychological needs (e.g. arousal, social) determines one’s psychological state in a given situation/circumstance (Diener *et al.*, 2002), and unfulfillment leads to mental burdens (Kim and Kim, 2023). In this sense, the type/extent of unfulfilled needs experienced after a loss can be useful situational features for capturing one’s perception of the losing circumstance and associated psychological threat; the types of unfulfilled need may be linked to specific coping strategies (e.g. those with unfulfilled social need may seek social support). That is, the type/extent of unfulfilled needs can be situational indicators of perceived threat and predictors of coping strategy selection.

Individual-level variations may occur in threat perception and coping strategy selection, due to personal factors such as value, goal and commitment placed on winning. Such individual-level moderators are formed based on perceived importance (Lazarus and Folkman, 1984; Park and Folkman, 1997) and define how threats are recognized (from irrelevant to stressful). Thus, referring to the theory, psychological importance can be a personal factor and boundary condition of coping. In sport, psychological importance of a win can moderate coping. Psychological importance is related to constructs well-discussed in sport management studies (e.g. psychological connection, team identification, team loyalty) but is distinctive in its focus on the win/loss as the direct stressor (rather than one’s association with a team). Empirical examination of individual-level variations and moderators of coping is lacking, especially across multiple strategies. Thus, comparison of coping patterns by psychological importance in regards to how sport consumers select coping strategies among multiple options and how effective each strategy is in dealing with loss-associated stress can contribute to the depth and nuance of understanding of coping with loss.

With psychological importance (of a win) set as a boundary condition, this study examines how needs unfulfilled after a loss (i.e. arousal, achievement, social) activate coping strategies (i.e. positive thinking, emotional venting, emotional support, avoidance) and how the strategies affect subjective well-being (i.e. negative affect reduction). This study is based on the Super Bowl LIII case and those who rooted for the team that lost; a three-wave survey (i.e. before, immediately after, 1-day after loss) capturing the coping process that occurs between the loss and the next day; and multi-group SEM comparing findings from high vs. low psychological importance groups. Theoretically, novel/depth insights are offered on how situational (i.e. degree/type of unfulfilled needs as predictors) and personal (i.e. psychological

importance as a moderator) factors interact to shape coping strategy selection among multiple options and its effectiveness in dealing with loss-associated stress. Practically, findings can inform strategies for facilitating sport consumer coping by identifying which coping options are (in-)active and (counter-)productive across/within target groups based on psychological importance.

Theoretical background

Transactional theory of stress and coping

According to the transactional theory of stress and coping by Lazarus and Folkman (1984), stress occurs when an individual is exposed to a stimulus that is perceived as harmful or threatening. When encountered, a stimulus is processed via the two steps of cognitive appraisal.

Primary appraisal. The first step is primary appraisal, which evaluates the stimulus and its influence on well-being. A stimulus with the potential to harm or threaten one's ego/identity, resources, safety, etc. would be appraised as stressful, drawing negative affective reactions and taxing well-being (Biggs *et al.*, 2017). For sport consumers, a loss can be appraised as stressful when psychologically invested in the team's win. Such stress/risk is explained as one's ego of being a supporter falling under attack due to a loss and/or the team's failure being perceived as one's own (Delia, 2017; Jensen *et al.*, 2023; Wann, 2006). Both cases can accompany negative emotions (e.g. anger, resentment; Kerr *et al.*, 2005), lowering subjective well-being state. Subjective well-being is widely conceptualized as a multidimensional construct, encompassing both affective and cognitive evaluations of one's experiences in life. Specifically, it comprises three dimensions: the presence of positive affect, the absence of negative affect and a cognitive judgement of satisfaction in life (Diener *et al.*, 2002). Incident-/event-based impacts on subjective well-being state can cumulatively add up to affect subjective well-being in a certain domain (e.g. leisure) and even life in general (referring to the bottom-up approach; Newman *et al.*, 2014).

In primary appraisal, the extent of stressfulness is contingent upon situational severity (e.g. threat level, threat type; Biggs *et al.*, 2017). For sport consumers, the circumstance of losing (e.g. upset, good fight) can be a factor concerning situational severity and need unfulfillment can be an indicator of such circumstance that explains associated stress/risk. In need theory, one's satisfaction/emotions in an activity are determined by the type/extent of psychological needs (e.g. arousal, social) fulfilled (Diener *et al.*, 2002). Needs are fulfilled as expectations are met. If unfulfilled, negative emotions occur to put risk/stress on well-being state (Howard *et al.*, 2025). For sport consumers, a loss can be a failed expectation, which leads to unfulfilled needs and perceived risk/stress (Kim *et al.*, 2017). The type/extent of need unfulfillment can be a situational factor unraveling details about emotions and dissatisfaction about game outcome and situational severity, determining stress-/risk-levels.

Secondary appraisal. After primary appraisal, secondary appraisal takes place to navigate coping strategies and select the most viable and effective option(s) (Lazarus and Folkman, 1984). There are two strategy types: problem-focused (i.e. resolving the stressor) and emotion-focused (i.e. dealing with affective reactions). For sport consumers, only emotion-focused coping strategies are available because they have no direct control over the stressor (i.e. game outcome/content). Duhachek (2005) categorized coping strategies in the consumption context; active coping (i.e. weaken the stressor), expressive support seeking (i.e. deal with stress-caused emotional/mental states) and avoidance (i.e. dismiss the stressor) are the three categories, and emotion-focused coping strategies relevant to each category are positive thinking, emotional venting and emotional support, and avoidance. Sport consumers can navigate these strategies and adopt single/multiple option(s) that is/are projected as effective in dealing with the loss-related stress, mitigating negative effects on subjective well-being (Kim and Kim, 2023).

Moderating factor. Throughout the two-step process of coping, personal factors can play influential roles as stress is explained as a person-environment transaction (Lazarus and

Folkman, 1984). Personal factors pertain to the personal significance of the situation and interact with situational factors to cause individual-level variation in perceived risk/stress. Personal significance is formed based on values (the importance attached to activities, aspirations, etc.), commitments (what is important to people) and goals (the expression of values and commitments) (Park and Folkman, 1997; see p. 123), all of which concern perceived importance. For sport consumers, psychological importance of the supporting team's win can be a personal factor shaping coping; the more the win is perceived as important, the more stressful the loss is (in primary appraisal) and the more actively one will seek coping (in secondary appraisal). The moderation of psychological importance is closely linked to patterns well-discussed in sport studies in that those psychologically invested in the team (e.g. team identification, psychological connection, loyalty) and thereby the team's success/failure tend to show stronger reactions post-loss (e.g. Doyle et al., 2017; Pearsall et al., 2025).

Hypotheses development

Need unfulfillment as a predictor of coping

Need unfulfillment is posited as a situational factor determining the extent of loss-caused stressfulness and activating coping. In the hierarchical model of sport consumption, Ko et al. (2017) suggested arousal, achievement and social needs as the three needs that shape sport consumers' psychological experiences and behaviors. These are fundamental needs that require satisfaction to achieve well-being in leisure (Newman et al., 2014) and in general (as defining qualities of hedonic, eudaimonic and social well-being; Ryan and Deci, 2001; Keyes, 1998).

Arousal need is rooted in one's desire to detach from work and seek hedonic experiences (Sonnentag and Fritz, 2007). Achievement need is driven by one's aspiration to be perceived as successful/capable (Elliot and Dweck, 1988). Social need is wanting to feel connected with others (Baumeister and Leary, 1995). In sport consumption, arousal can be felt via catharsis, salubrious effects, eustress, etc. (Sloan, 1989). Achievement can be vicariously experienced via the success of the team one supports (Wann, 2006). Social belonging can come from fanship (with the team) and fandom (with other supporters) (Reysen and Branscombe, 2010). Experiences of arousal, achievement and social belonging can fuel, replenish and conserve psychological resources (e.g. energy, stress resistant, vigor) that are essential to sustain well-being (i.e. conservation of resource; Hobfoll and Wells, 1998). Lack of such experiences can result in inadequate levels of resources and thus negative well-being states.

Fulfillment of the needs was examined as key predictors of sport consumer's well-being state (e.g. Kim and James, 2019; Wang et al., 2013). The type/extent of need fulfillment was found as useful features for capturing the sport experience quality and associated emotional states (Kim et al., 2017). However, previous focus was mainly on need fulfillment and positive outcomes rather than unfulfillment and negative consequences. There is ample evidence that a loss of one's team is linked to negative emotions (e.g. resentment, frustration; Kerr et al., 2005), lower self-esteem (Wann et al., 2001) and loneliness (Oshimi et al., 2014), hinting unfulfilled arousal, achievement and social needs and associated mental stress/risk. As such, unfulfillment of the three needs can be considered as loss-associated mental burdens that can lead to coping activation. H1 ~ H3 are proposed:

H1 ~ H3. Arousal (H1), achievement (H2) and social (H3) needs unfulfilled after watching a losing game positively affect emotion-focused coping strategies.

Emotion-focused coping strategies as defensive mechanisms

After primary appraisal of psychological threat/stress associated with loss-caused need unfulfillment, secondary appraisal navigates emotion-focused coping strategies to deal with

the threat/stress. Emotion-focused coping strategies cannot resolve the stressor but help alleviate loss-associated distress (Lazarus and Folkman, 1984). Positive thinking, emotional venting, emotional support and avoidance are identified as key strategies of interest for the study (Duhachek, 2005).

Positive thinking is a form of active coping (i.e. weakening the stressor) that “attempts to psychologically reconstrue a source of stress in order to make it more tolerable” (Duhachek, 2005, p. 46). The strategy sheds a positive light on the negative situation and comes in diverse forms such as shifting focus and attribution bias. For sport consumers, focus can shift from the loss to other positive aspects (e.g. improvement, good effort, enjoyment) of the game (Kim et al., 2017). Doyle et al. (2017) explained such shift as social creativity and coming from focusing on new dimensions of comparison (e.g. fair play, future hope), other identities (e.g. as a sport fan), other unsuccessful teams, etc. Attribution bias is another way to frame the loss more positively by attributing the loss to external aspects (e.g. opponent, referee, fate) rather than internal ones (e.g. team performance; Dwyer et al., 2018). Such positive thinking can be a way to cope with perceived risk/stress caused by a loss, which positively affects subjective well-being state.

Emotional venting and emotional support are forms of expressive support-seeking strategies (i.e. dealing with emotional/psychological states caused by stress). Emotional venting “attempts to recognize and express one’s emotions” (Duhachek, 2005, p. 46). It deals with psychological distress by disclosing/discharging negative emotions before they pile up and aggravate into mental damage (i.e. catharsis; Bushman et al., 2001). Emotional venting is commonly seen among sport consumers via blasting and out-group derogation toward opposing team, players and supporters (Wann, 2006). Emotional support “attempts to marshal social resources to improve one’s emotional and/or mental state” (Duhachek, 2005, p. 45), relieving distress by sharing negativities with (e.g. sadness, disappointment) and seeking positivities from (e.g. reassurance, sympathy) others (e.g. friend, family, fans). Tendency of supporters showing stronger unity after a loss is an archetypal sign of seeking social/emotional support and protecting one’s ego/identity as supporter (i.e. group cohesion; Wann, 2006). As ways to relieve negative emotions post-loss, emotional venting and emotional support can help coping and improve subjective well-being.

Avoidance is a stressor-dismissal strategy that “attempts to create psychic or physical distance between oneself and a stressor” (Duhachek, 2005, p. 46). Sport consumers are witnessed denying (e.g. “this is not real”) or shutting their brains off after a loss to take one’s mind off the stressor. CORFing is another form of avoidance, which is distancing oneself from the team (thinking *they* lost instead of *we*; Wann and Branscombe, 1990). This type of approach is known to be available only to those with low identification (or emotional connection) with the team (Kwon et al., 2008) but not those with high identification who are too loyal to cut their attachment due to temporary setbacks. The adaptive effects of avoidance tend to be limited as nothing is being done about the stressor or associated risk/stress. Carver et al. (1989) explained the strategy to be effective only if the stressor and relevant distress can be positively ignored (when dissolved overtime without aggravation). In such case, avoidance can be a strategy useful for coping with a loss, potentially helping to sustain subjective well-being. H4 ~ H7 are proposed:

- H4 ~ H7. Emotion-focused coping strategies of positive thinking (H4), emotional venting (H5), emotional support (H6) and avoidance (H7) positively affect subjective well-being state (i.e. negative affect reduction).

Psychological importance as a boundary condition of coping

Psychological importance of the success/win of one’s team is suggested as an indicator of personal significance that explains why a given situation can be (more) stressful to one but not to another (Lazarus and Folkman, 1984). Hence, psychological importance can set a

boundary condition for sport consumer coping, influencing the extent of loss-associated stress and coping behavior. Similar concepts of psychological importance have been actively studied in sport management. Funk and James (2001) proposed the psychological continuum model, where personal meaning is highlighted as an intrinsic feature that forms one's attachment to a team and reaction to the team's success. According to identity theory, spectator identity is a meaning applied to the self in a role (e.g. supporter) or situation (e.g. supporting a team), and the importance of such role/situation shapes team-related behavior (Lock and Heere, 2017). Team identification research (e.g. Doyle *et al.*, 2017) describes those with stronger psychological connection to a team to place more emotional/value significance on game results, which significance can be expressed during the game via emotional/behavioral support (e.g. cheering/chanting/booing, dress in team color, opponent derogation) and even amplified via emotional contagion among fan groups; such significance results in stronger negative consequences post-loss and distinctive coping patterns. These concepts are grounded in personal significance/importance and are determinants of loss-associated reactions, supporting the proposed role of psychological importance in sport consumer coping.

Studies report that sport consumers with higher psychological importance show more prominent involvement in coping behaviors (e.g. Madrigal and Chen, 2008; Wann *et al.*, 2001). Certain coping strategies (e.g. distancing) are known to be available/effective only when psychological importance is low (e.g. Kwon *et al.*, 2008). These findings present insights on the role of psychological importance in coping but are limited in focusing on a single strategy or each in isolation (Delia, 2017). Testing multiple strategies in conjunction can advance the knowledge because "different strategies may be more common for specific type of threat" (Wann, 2006, p. 279) and specific level of threat (e.g. Kwon *et al.*, 2008). Comparison of coping patterns and outcomes between high vs. low psychological importance groups can offer insights on the boundary conditions of coping selection/effectiveness. H1a ~ H7a are presented:

- H1a ~ H3a. Positive effects of unfulfilled arousal (H1a), achievement (H2a) and social (H3a) needs on emotion-focused coping strategies are stronger among those who place higher levels of psychological importance on the win (i.e. positive moderation).
- H4a ~ H7a. Positive effects of the emotion-focused coping strategies of positive thinking (H4a), emotional venting (H5a), emotional support (H6a) and avoidance (H7a) on subjective well-being state are stronger among those who place higher levels of psychological importance on the win (i.e. positive moderation).

Methods

Research design

We conducted a field study to test the proposed hypotheses (Figure 1), involving a three-wave survey (before, immediately after and 1-day after the loss of one's team) for a more real-time measurement of the coping process and subjective well-being state in a natural setting (Diener *et al.*, 2002). Our target was sport media consumers living in the United States who were rooting for the team that lost in Super Bowl LIII. The context was deemed appropriate for examining the most popular sport event in the United States with a nationwide consumer base and for capturing sport consumer coping prevalent in normal consumption settings (unaffected by the pandemic). After confirmatory factor analysis (CFA) and testing measurement invariance, multi-group SEM examined paths from need unfulfillment, to coping and to negative affect, comparing the findings based on psychological importance.

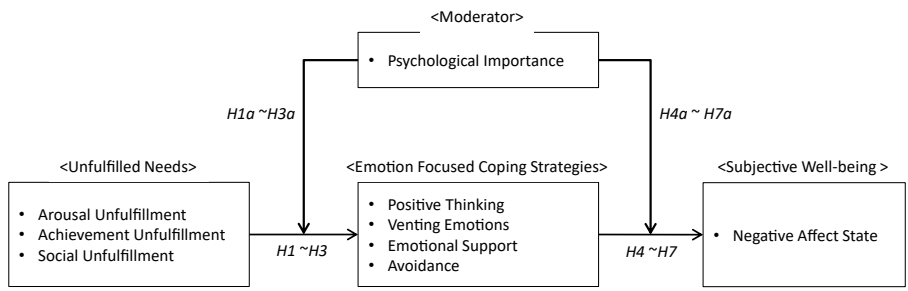


Figure 1. The conceptual model. Source: Authors' own work

Participant and sampling

Participants were media viewers of Super Bowl LIII who were cheering for the losing team (cf. Rams lost to Patriots 3–13; pre-game betting odd of +2.5 point spread indicated Patriots were slightly favored to win over Rams; it was a somewhat expected and lackluster loss). Amazon Mechanical Turk (MTurk) was used for convenience quota sampling (by gender, age, the team one supports); only participants with more than 95% HIT approval rates were recruited. From five to one day before the event, an invitation to participate in a three-wave survey was posted; only adults living in the United States, intending to watch the event on TV/Internet and cheering for either one of the two contending teams were invited. One's support for the relevant team was ensured by asking to identify the team one is rooting for in Super Bowl LIII with an explanation why. Only those who selected one of the two contending teams and provided an attentive response/explanation were recruited for the study.

Instrument

Need unfulfillment. We measured needs unfulfillment after a loss quantifying the deficit between one's expectations for and experiences of needs fulfillment (following Payne, 1970). We developed ten 7-point Likert-type items (Table 1) by adopting/modifying items from prior studies (e.g. Kim et al., 2017; Ko et al., 2017). We chose items that were (1) frequently utilized in well-being research, (2) applied in sport consumption contexts and (3) proven to have good psychometric properties (e.g. Kim and James, 2019; Kim et al., 2017; Ko et al., 2017; Kwon et al., 2008). One's actual experience of fulfilling ____ (e.g. pleasure, sense of belonging) needs during the Super Bowl was measured in comparison to one's realistic expectations he/she had pre-event (e.g. -3 = exceeded expectation, 0 = met expectation, +3 = short of expectation).

Coping. Emotion-focused coping strategies were measured with items from Carver et al.'s scale (1989; 4 items for positive thinking, 3 items for emotional venting, 3 items for emotional support, 3 items for avoidance). This scale was conceptually based on the theory of stress and coping (Lazarus and Folkman, 1984) and is one of the most popularly used scales in coping research with strong records of psychometric properties (Kato, 2015). Items were modified to fit our sport context and developed using a 7-point Likert-type scale.

Subjective well-being. Among the three dimensions of subjective well-being (e.g. positive affect, life satisfaction), negative affect was adopted as the indicator of subjective well-being state. In stress and affect literature, negative affect is known to primarily explain self-reported stress and coping (Watson et al., 1988) and threat evaluation in primary appraisal (Castro et al., 2022). In sport literature, negative affect is pointed out as a direct outcome of a loss (Kerr et al., 2005) that activates defensive coping mechanisms (Wann, 2006). Within the transactional theory, acute/episodic stressors (e.g. loss) are most directly manifested via immediate negative affective reactions rather than shifts in cognitive evaluations of life (Lazarus and Folkman,

Table 1. Measurement properties

Scale items	Est	S.E.	ρ	AVE	Mean	SD
<i>Need Unfulfillment</i>						
Arousal Unfulfillment			0.92	0.75		
1. Excitement	0.86	0.01			1.13	1.71
2. Pleasure	0.84	0.02			1.13	1.79
3. Fun	0.86	0.01			1.04	1.71
4. Entertainment	0.89	0.01			0.99	1.80
Achievement unfulfillment			0.89	0.74		
1. Sense of accomplishment	0.89	0.01			0.92	1.75
2. Sense of success	0.92	0.01			1.16	1.82
3. Sense of pride	0.76	0.02			1.00	1.82
Social unfulfillment			0.93	0.83		
1. Sense of being part of a social group	0.90	0.01			0.89	1.87
2. Sense of community	0.98	0.01			0.98	1.89
3. Sense of belonging	0.84	0.01			0.82	1.83
<i>Coping strategies</i>						
Positive thinking			0.91	0.71		
1. I looked for something good in what happened in the game	0.86	0.01			4.17	1.74
2. I tried to see the game in a different light, to make it seem more positive	0.91	0.01			4.05	1.80
3. I emphasized on other accomplishments or positive aspects in the game	0.86	0.02			4.03	1.81
4. I tried to focus on how the team has grown as a result of the game	0.75	0.02			3.71	1.83
Venting emotions			0.87	0.82		
1. I let my emotions out	0.92	0.02			2.88	1.74
2. I have let my feelings out	0.73	0.02			3.65	1.86
3. I expressed my emotional feelings	0.85	0.02			2.79	1.75
Seeking emotional support			0.91	0.76		
1. I talked to friends, family or other fans about how I feel	0.87	0.01			4.02	1.94
2. I tried to get emotional support from friends, family or other fans	0.93	0.01			3.80	1.96
3. I discussed my feelings with friends, family or other fans	0.81	0.02			3.53	1.95
Avoidance			0.93	0.60		
1. I pretended that it hasn't really happened	0.90	0.01			1.75	1.12
2. I refused to believe that it has happened	0.94	0.01			1.71	1.07
3. I said to myself "this isn't real"	0.89	0.01			1.76	1.16
<i>Change in subjective well-being state</i>						
Negative affect			0.86	0.83		
1. I feel angry about the game	0.79	0.02			-1.81	1.98
2. I feel upset about the game	0.78	0.02			-1.99	2.18
3. I feel distressed about the game	0.84	0.02			-1.92	2.14
4. I feel ashamed about the game	0.68	0.03			-0.70	2.09

Source(s): Authors' own work

1984); measuring fluctuations in negative affect provides a highly sensitive and temporally aligned metric to assess loss-associate stress and immediate effectiveness of emotion-focused coping strategies.

Four items came from Watson *et al.*'s Positive and Negative Affect Schedule (Watson *et al.*, 1988), which can capture changes in subjective well-being state and are widely used for well-being studies in contexts including sport (e.g. Kim and James, 2019; 7-point Likert type). To assess the change in well-being state over coping, we measured and compared negative affect

immediately and 1-day after the loss (Kim *et al.*, 2017); a negative value indicates negative affect reduction and thus improved subjective well-being state.

Others. Based on expert consultation, an item to measure psychological importance was constructed as “how important is it to you that the [team name] wins the Super bowl?” (cf. 1 = not important at all, 7 = extremely important). Single-item use was deemed appropriate as the construct was unambiguous (Trail *et al.*, 2023), and content, face and criterion validities were ensured via expert reviews and pilot testing. The measure had good validity and well-served our purpose of grouping respondents (high vs. low). For screening, we developed items asking one’s intention to and actual behavior of watching the Super Bowl. We also asked, “which team are you rooting for in the Super Bowl?” (multiple choice) and “why are you rooting for the team?” (open ended). Items for demographics (age, gender, race, income, education) and contact information (email, mobile) were included.

Survey design. Three online questionnaires were prepared for each wave of data collection. The before-questionnaire included items for intention to watch the event (1 item), the team one supports (2 items), psychological importance of the team’s win (1 item), demographics (5 items) and contact information (2 items). The immediately-after-questionnaire consisted of items asking whether one watched the event (1 item; screening purpose), need unfulfillment (10 items), negative affect state caused by the loss (4 items) and contact information (2 items; matching purpose). The one-day-after-questionnaire listed items about adoption of coping strategies (13 items), negative affect state caused by the loss (4 items) and contact information (2 items; matching purpose).

Efforts were made to minimize common method variance (e.g. ensuring anonymity, succinct/unambiguous design, proximal separation; Podsakoff *et al.*, 2012). Harmon’s one-factor test (1976) was conducted to examine if a single or general factor emerges to account for the majority of variance; no factor emerged. Altogether, common method variance was not a concern. After pilot testing ($n = 182$) and expert reviews, the questionnaires were ready for use.

Data collection and analyses

After obtaining IRB approval, the first survey took place along with participant recruitment from five to one day before the Super Bowl. 2,027 U.S. residents who were supporting either one of the two contending teams were recruited via Mturk. We removed those mentioning betting as their main cause of supporting the team. Immediately after the event, 1,256 participants who were rooting for the team that lost in Super Bowl LIII received the second survey link via mobile phone or email. The time point was chosen as the moment when the loss was confirmed, distress was recognized and coping was to take place. The second survey was open from immediately after to 3 h after the game completion. As a result, 778 useable responses were collected (61.9% response rate) after eliminating 23 incomplete/unreliable responses (e.g. all answers were the same). We conducted the third survey 1-day after (specifically, 12–24 h after) the event. The timeframe was selected as a period when loss-associated reactions were most apparent and actively dealt with (Dolton and MacKerron, 2018); while there was no prior reference specific to sport consumer coping, the timeframe was adopted in coping studies about leisure-induced stress (e.g. VR gaming; Lin, 2017) and emotion studies related to team performance (e.g. Gkorezis *et al.*, 2016). Only those who completed the second survey were invited to the third. Removing 16 incomplete/invalid responses, 502 responses were usable (64.5% response rate). We treated missing data with listwise deletion. Little (1988) MCAR test indicated no systematic patterns in missing data ($p > 0.05$).

Table 2 shows demographics of participants in the three surveys. Participant characteristics were fairly consistent across surveys, showing no concern regarding attrition bias. Although slightly younger and more educated, our participant pool [average age: 45.8 (13.8 SD), 55% male, 74.2% Caucasian, 55.8% with 4-year or post graduate degree; median household income ranged in \$50,000 to \$99,000] adequately matched the general NFL consumers (e.g. IPG Media, 2014; Nielsen, 2014; Quantumrun, 2025).

Table 2. Demographics

Demographics		1st survey (<i>n</i> = 2,027)	2nd survey (<i>n</i> = 778)	3rd survey (<i>n</i> = 507)	NFL fans in general
Age	Average	46.7	45.7	45.8	48.9
Gender	Male	1,062(52.4%)	431(55.4%)	279(55.0%)	58%
	Female	965(47.6%)	347(44.6%)	228(45.0%)	42%
Race	Caucasian	1,527(75.3%)	565(72.6%)	376(74.2%)	77%
	African American	277(13.7%)	129(16.6%)	70(13.8%)	15%
	Hispanic/Asian/Others	223(11.0%)	84(10.8%)	61(12.0%)	8%
Education	Less than or high school degree	203(10.0%)	76(9.8%)	44(8.7%)	34% has
	Some Colleges or 2-year degree	686(33.8%)	244(31.4%)	180(35.5%)	4-year or post
	College 4-year College degree	805(39.7%)	330(42.4%)	218(43.0%)	graduate degree
	Master's degree	265(13.1%)	103(13.2%)	55(10.8%)	
	Doctoral/professional degree	68(3.4%)	25(3.2%)	10(2.0%)	
Household income	Less than \$49,999	792(39.1%)	313(40.2%)	195(38.5%)	27% has
	\$50,000–\$99,999	785(38.7%)	313(40.2%)	205(40.4%)	\$75k + income
	\$100,000–\$149,999	255(12.6%)	89(11.4%)	50(9.8%)	
	\$150,000 or more	110(5.4%)	30(3.9%)	27(5.3%)	
	I'd rather not say	85(4.2%)	33(4.3%)	30(5.9%)	

Source(s): Authors' own work

Data collected from 502 participants who were rooting for the losing team and responded to all three surveys were used in the analysis. Participants were split into two groups based on psychological importance of his/her team winning. Those reporting psychological importance equal or higher than moderately important were the high group ($n = 297$; mean = 4.85; SD = 0.89). Those with lower than moderate importance were the low group ($n = 205$; mean = 2.40; SD = 0.66). Using *R* version 4.3.1, we fitted structural equation models including CFA, measurement invariance test and multi-group SEM. Paths from need unfulfillment, to coping strategies and to change in negative affect states were tested and compared between the high and low groups.

Results

Psychometric properties

We conducted CFA with Lavaan *R* package. The sample size of 502 was larger than the recommended minimum of 424 (in power analysis). Testing assumptions for SEM, there was no major concerns (e.g. linearity, multicollinearity, singularity, missing data), but one. Standardized Mardia's coefficients (1985) were 74.52 ($p < 0.001$) and 726.32 ($p < 0.001$), indicating violation of multivariate normality; we adopted Satorra–Bentler (S-B) scaled χ^2 and adjusted model fit (2001).

Psychometric properties of the measurement model were evaluated for need unfulfillment, coping strategies and change in negative affect state. The model yielded good fit (S-B $\chi^2/df = 451.01/296 = 1.52$, CFI = 0.98, TLI = 0.98, RMSEA = 0.032). Reliability coefficients were all greater than 0.70 (from 0.86 to 0.92). All factor loadings were significant in positive directions ($p < 0.001$; from 0.68 to 0.98), and all average variance extracted (AVE) values exceeded 0.50 (from 0.60 to 0.83). Results supported convergent validity and reliability. To ensure discriminant validity, the baseline/unconstrained model (freely estimating factor correlation) was compared to a set of constrained models (constraining each factor correlation one at a time). In all comparisons, the fit of unconstrained model was better than constrained models; the smallest adjusted Δ S-B χ^2 was 42.95 ($df = 1$, $p < 0.001$). All AVEs were greater

than corresponding squared inter-construct correlations, further evidencing discriminant validity (Fornell and Larcker, 1981). Overall results supported adequate psychometric properties of the measures.

Measurement invariance

Before multi-group SEM to test if influences of need unfulfillment on coping strategy and negative affect varied by psychological importance, we examined measurement invariance to ensure psychometric equivalence of latent constructs across groups (Putnik and Bornstein, 2016). The baseline model separately fitted for each group without any constraints yielded good fit (S-B $\chi^2/df = 760.12/592 = 1.52$, CFI = 0.979, TLI = 0.976, RMSEA = 0.036), showing configural invariance. The model fit of metric invariance model (fixed loadings) was not significantly worse than configural invariance ($\Delta\chi^2 = 19.04$, $df = 19$) with CFI change of 0.000, RMSEA change of 0.000 and TLI change of 0.000. That is, the metric invariance model fitted equally well as configural invariance, supporting metric invariance based on the principle of parsimony. The χ^2 difference test between scalar invariance (fixed loadings and intercepts) and metric invariance was significant ($\Delta\chi^2 = 20.76$, $df = 19$) with CFI change of 0.000, RMSEA change of 0.000 and TLI change of 0.001, indicating scalar invariance. That is, latent constructs can be interpreted in the same way across groups and relations among constructs can be compared between groups.

Multiple-group SEM analysis

High group. The scalar invariance model yielded good fit (S-B $\chi^2/df = 977.81/610 = 1.60$, CFI = 0.952, TLI = 0.945, RMSEA = 0.049). Regarding H1 ~ H3 in the high group (see Table 3), Arousal Unfulfillment (H1) had significant influences on Positive Thinking ($\gamma = 0.53$, $p < 0.01$), Emotional Support ($\gamma = 0.16$, $p = 0.03$) and Avoidance ($\gamma = 0.14$, $p = 0.06$; marginal). Achievement Unfulfillment (H2) had positive associations with Positive Thinking ($\gamma = 0.19$, $p < 0.01$), Venting Emotions ($\gamma = 0.23$, $p < 0.01$), Emotional Support ($\gamma = 0.15$, $p = 0.05$) and Avoidance ($\gamma = 0.13$, $p = 0.09$; marginal). Social Unfulfillment (H3) had significant impacts on Positive Thinking ($\gamma = 0.16$, $p < 0.01$) and Emotional Support ($\gamma = 0.12$, $p = 0.07$; marginal). 49.6% of coping variance was explained by unfulfilled needs. Regarding H4 ~ H7, Venting Emotion (H5; $\beta = -0.27$, $p < 0.01$) negatively impacted Negative Affect (assisting reduction). However, Avoidance (H7; $\beta = 0.27$, $p < 0.01$) positively affected Negative Affect (resulting increase). Positive Thinking (H4) and Emotional Support (H6) had insignificant effects. 14.6% of negative affect variance was explained by coping strategies.

Low group. For H1 ~ H3 in the low group, Arousal Unfulfillment (H1) was positively linked to Positive Thinking ($\gamma = 0.24$, $p < 0.01$) and Avoidance ($\gamma = 0.32$, $p < 0.01$). Achievement Unfulfillment (H2) positively affected Emotional Support ($\gamma = 0.22$, $p < 0.01$). However, Social Unfulfillment (H3) negatively affected Emotional Support ($\gamma = -0.24$, $p < 0.01$). 26.6% of coping variance was explained by unfulfilled needs. For H4 ~ H7, Emotional Support (H6; $\beta = -0.39$, $p < 0.01$) negatively influenced Negative Affect (assisting reduction), whereas Avoidance (H7; $\beta = 0.17$, $p = 0.02$) had a positive impact on Negative Affect (resulting increase). Positive Thinking (H4) and Venting Emotions (H5) had insignificant effects. 18.1% of negative affective variance was explained by coping strategies.

Moderating effect. Further assessing the conditional effects of psychological importance, path coefficients between need unfulfillment and coping were compared between the high and low groups (H1a ~ H3a; see Table 4). For the high group, the effects of Arousal Unfulfillment (H1a) on Positive Thinking ($\Delta\text{Unst.} = 0.28$, $\Delta\chi^2 = 6.00$, $p = 0.01$) and Emotional Support ($\Delta\text{Unst.} = 0.18$, $\Delta\chi^2 = 1.60$, $p = 0.01$) were stronger than in the low group. Achievement Unfulfillment (H2a) had a marginally greater impact on Positive Thinking ($\Delta\text{Unst.} = 0.23$, $\Delta\chi^2 = 3.01$, $p = 0.08$) for the high group (than low). The influence of Social Unfulfillment (H3a) on Emotional Support ($\Delta\text{Unst.} = 0.38$, $\Delta\chi^2 = 11.34$, $p < 0.01$) was larger for the high group (than low). Regarding path coefficients between coping and subjective well-being

Table 3. H1 ~ H7 Testing results

	Low-importance			Hypotheses testing	High-importance			Hypotheses testing
	Std	SE	p	In low group	Std	SE	p	In high group
ARU → PT	0.24**	0.09	<0.01	H1 – Supported	0.53**	0.08	<0.01	H1 – Supported
ARU → VE	0.04	0.09	0.61	H1 – Not supported	0.06	0.08	0.40	H1 – Not supported
ARU → ES	0.00	0.10	0.98	H1 – Not supported	0.16*	0.08	0.03	H1 – Supported
ARU → AV	0.32**	0.05	<0.01	H1 – Supported	0.14(*)	0.06	0.06	H1 – Supported (Marg.)
ACU → PT	-0.04	0.09	0.64	H2 – Not supported	0.19**	0.07	<0.01	H2 – Supported
ACU → VE	0.07	0.09	0.40	H2 – Not supported	0.23**	0.08	<0.01	H2 – Supported
ACU → ES	0.22**	0.11	<0.01	H2 – Supported	0.15*	0.08	0.05	H2 – Supported
ACU → AV	0.12	0.05	0.12	H2 – Not supported	0.13(*)	0.06	0.09	H2 – Supported (Marg.)
SU → PT	0.00	0.07	0.98	H3 – Not supported	0.16**	0.05	<0.01	H3 – Supported
SU → VE	-0.11	0.08	0.19	H3 – Not supported	0.09	0.06	0.20	H3 – Not supported
	-0.24**	0.09	<0.01	H3 – Not supported (-)	0.12(*)	0.06	0.07	
SU → ES								H3 – Supported (Marg.)
SU → AV	0.04	0.04	0.60	H3 – Not supported	0.06	0.04	0.36	H3 – Not supported
PT → NA	0.10	0.07	0.17	H4 – Not supported	0.10	0.07	0.11	H4 – Not supported
VE → NA	-0.05	0.08	0.48	H5 – Not supported	-0.27**	0.06	<0.01	H5 – Supported
	-0.39**	0.07	<0.01	H6 – Supported	-0.08	0.06	0.21	H6 – Not supported
ES → NA								
AV → NA	0.17*	0.14	0.02	H7 – Not supported (-)	0.27**	0.09	<0.01	H7 – Not supported (-)

Note(s): ARU = Arousal unfulfillment; ACU = Achievement unfulfillment; SU = Social unfulfillment; PT = Positive thinking; VE = Venting emotions; ES = Emotional support; AV = Avoidance; NA = Negative affect; (*) $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, Marg. = Marginal, (-) = in negative direction

For reference, when H1 ~ H7 were tested with total sample (from both groups), paths from ARU to PT ($\gamma = 0.43^{**}$), ES ($\gamma = 0.13^{*}$) and AV ($\gamma = 0.22^{**}$); from ACU to PT ($\gamma = 0.19^{**}$), VE ($\gamma = 0.28^{**}$), ES ($\gamma = 0.28^{**}$) and AV ($\gamma = 0.19^{*}$); from SU to PT ($\gamma = 0.12^{*}$); from VE ($\gamma = -0.22^{**}$), ES ($\gamma = -0.22^{**}$) and AV ($\gamma = 0.23^{**}$; in negative direction) were significant. Paths significant in total sample were those fully (in both) or partially (in either high or low) significant in sub-groups. Paths insignificant in total sample were also insignificant in both groups (exception: from SU to ES, where opposite directional effects in high vs. low groups cancelled each other out in total sample)

Source(s): Authors' own work

(H4a ~ H7a), the negative influence of Venting Emotion on Negative Affect (H5a) was marginally stronger for the high group ($\Delta\text{Unst.} = -0.11$, $\Delta\chi^2 = 2.60$, $p = 0.10$), indicating stronger well-being effects in the high group. The negative impact of Emotional Support (H6a) was stronger for the low group ($\Delta\text{Unst.} = 0.26$, $\Delta\chi^2 = 5.99$, $p = 0.01$), hinting at stronger well-being effects in the low group. The valence of Positive Thinking's (H4a) and Avoidance's (H7a) influences on Negative Affect did not significantly differ between the high and low groups.

Discussion

Theoretical implications

This study paints a more holistic picture of the ongoing, complex and conditional process of sport consumer coping grounded in the transactional theory of stress and coping and with the Super Bowl LIII case. Various coping strategies are tested/compared as defensive mechanisms

Table 4. H1a ~ H7a Testing results

	High-low group comparison		Hypotheses testing Moderation
	Δ Unst	$\Delta\chi^2$ (Δdf)	
ARU → PT	0.28	6.00(1)**	H1a – Supported
ARU → VE	0.03	0.36(1)	H1a – Not supported
ARU → ES	0.18	1.60(1)*	H1a – Supported
ARU → AV	–0.06	0.44(1)	H1a – Not supported
ACU → PT	0.23	3.01(1) (*)	H2a – Supported (Marg.)
ACU → VE	0.16	1.15(1)	H2a – Not supported
ACU → ES	–0.13	1.01(1)	H2a – Not supported
ACU → AV	0.03	0.14(1)	H2a – Not supported
SU → PT	0.14	1.69(1)	H3a – Not supported
SU → VE	0.18	2.60(1)	H3a – Not supported
SU → ES	0.38	11.34(1)**	H3a – Supported
SU → AV	0.02	0.16(1)	H3a – Not supported
PT → NA	0.01	0.01(1)	H4a – Not supported
VE → NA	–0.21	2.60(1) (*)	H5a – Supported (Marg.)
ES → NA	0.26	5.99(1)**	H6a – Supported (–)
AV → NA	0.04	0.04(1)	H7a – Not supported

Note(s): ARU= Arousal unfulfillment; ACU= Achievement unfulfillment; SU= Social unfulfillment; PT= Positive thinking; VE = Venting emotions; ES = Emotional support; AV = Avoidance; NA= Negative affect; (*) $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, Marg. = Marginal, (–) = in negative direction

Source(s): Authors’ own work

for dealing with a loss of one’s supporting team, and the selection and effectiveness of strategies show distinctive patterns based on situational (i.e. degree/type of unfulfilled needs) and personal (i.e. psychological importance) factors.

Need unfulfillment, psychological importance and coping. Need unfulfillment was proposed as an indicator of situational severity, determining the loss-associated degree/type of stress that shapes coping strategy activation/selection (Biggs *et al.*, 2017). The proposition is supported as arousal, achievement and social unfulfillments are found as antecedents for coping activation. The finding builds on existing knowledge on need fulfillments as predictors of well-being state in sport (e.g. Kim *et al.*, 2017; Ko *et al.*, 2017) and expands the focus to their unfulfillments and negative reactions.

The types of unfulfilled needs are identified as determinants of patterns in coping activation and selection, as certain types drive stronger coping engagement (e.g. arousal) and affect strategy selection (e.g. unfulfilled achievement to emotional support). The patterns become more complex with psychological importance in play, attesting Lazarus and Folkman’s point that stress should be approached as an environment-person transaction (1984). Adding to sport studies viewing psychological importance as a boundary condition (based on emotional connection, identification, etc.; e.g. Doyle *et al.*, 2017; Trail *et al.*, 2012), this study advances our knowledge by unraveling how unfulfilled needs, psychological importance and their interaction affect stress levels and coping. Our findings also offer insights on coping strategy selection among multiple options.

In the high group, unfulfilled needs lead to active (explaining 49.6% of coping variance) and diverse (out of 12 paths, 6 were significant and 3 marginally significant; all in predicted directions) coping behavior. Arousal and achievement unfulfillment are respectively linked to 3 and 4 strategies (each including 1 marginal link). For those personally invested in a win, the loss likely thwarted positive emotions (Kerr *et al.*, 2005) and limited opportunities for vicarious achievement (Wann *et al.*, 2001), threatening mental resources (e.g. energy, vigor) and state (e.g. ego), causing psychological burdens (Hobfoll and Wells, 1998) and thus triggering coping. Notably, unfulfilled arousal to emotional venting is the only insignificant

path. Perhaps, lack of positive emotions did not necessarily result in negative emotions (Watson *et al.*, 1988), making the negativity-discharging strategy irrelevant. Comparatively, social unfulfillment is linked to 2 strategies (including 1 marginal link), hinting at being a lesser threat/option in this case. This may be unique to the context of Super Bowl, where people tend to watch in groups (lack of fandom from others may be less of a concern) and as distant supporters (with physical limitation for fandom with the team). Such uniqueness and explanations require further verification.

In the low group, unfulfilled needs have meaningful impacts on coping, explaining 26.6% of coping variance and being significant in 4 out of 12 paths (3 in positive and 1 in negative directions). The extent and pattern of links vary from the high group (less active/diverse), availing insights on the conditional effects of psychological importance (Park and Folkman, 1997). Unfulfilled arousal is the most influential trigger for coping in this group, insinuating that it is a greater threat. Prior studies (e.g. Apostolopoulou *et al.*, 2006) find those less invested in a team and its success to put more focus on the entertainment (e.g. game excitement, halftime show) than the competition side of events. Social unfulfillment is negatively linked to emotional support (direction opposite from the high group), implying psychological importance can shape directions as well as strengths of links between unfulfilled needs and coping; with fandom and fandom having weak foundations in the low group, emotional support is likely seen as an un-/counter-productive option. In further testing of moderation, positive thinking and emotional support are strategies particularly influenced by psychological importance. Overall, psychological importance is shown to affect the activeness and diverseness in coping strategy adoption, perceived threat levels per unfulfillment types, (un-) selection of specific strategies and impose stronger impacts on certain strategies. Such findings expand our understanding of the role of psychological importance in sport consumer coping.

Coping, psychological importance and negative affect. Four emotion-focused coping strategies are tested as ways to deal with loss-associated stress. The strategies have meaningful impacts on well-being, explaining 14.6% (in the high group) and 18.1% (in the low group) of the variance in negative affect reduction. The results are mixed (i.e. positive, insignificant and negative) and patterns vary by psychological importance, indicating the complexity of coping effectiveness.

The expressive support-seeking strategies of emotional venting and emotional support are found as conditionally effective for coping. The strategies have the strongest positive well-being effects in this case, implying the importance of discharging stress-caused emotional burdens before bottling up to cause mental harm (Duhachek, 2005). In the high group, emotional venting facilitates negative affect reduction, indicating catharsis to be beneficial (Bushman *et al.*, 2001). The strategy in the group is mainly prompted by unfulfilled achievement, supporting studies emphasizing loss-associated ego/identity threat as a cause of negative affective reactions (e.g. Jones *et al.*, 2012) and personal significance/importance as a boundary condition (based on significance of paths by groups). Emotional support is effective in the low group, relieving negative affect by sharing emotional distress (e.g. sadness, disappointment) or seeking emotional comfort (e.g. sympathy, reassurance) (Delia, 2017). The strategy being more effective in the low group (than high) contrasts our prediction but still supports psychological importance's role in shaping coping effectiveness and mechanism. Notably, while triggered by achievement unfulfillment, emotional support is also deterred by social unfulfillment, demonstrating that a strategy can be effective yet unavailable in certain circumstances (discussed earlier based on lacking fandom/fandom in the low group).

The active coping strategy of positive thinking, which attempts to weaken the stressor by reconstruing a negative situation with a positive light, did not significantly affect well-being state (Carver *et al.*, 1989). Such finding is inconsistent with prior studies (e.g. Dolye *et al.*, 2017; Dwyer *et al.*, 2018). One plausible explanation comes from our measure of well-being focusing on hedonic/affective state (Watson *et al.*, 1988), while positive thinking is more linked to cognition (Duhachek, 2005) and well-being captured by personal growth (Carvalho and Vale-Dias, 2013). Perhaps, the strategy did not directly resolve negative affective reactions

but augment other coping strategies. In a similar vein, [Nils and Rimé \(2012\)](#) and [Bohart \(1980\)](#) found positive reframing to supplement venting in reaching emotional recovery. The conjecture hints interaction effects among coping strategies and should be further investigated.

The stressor-dismissal strategy of avoidance is reported to impede the reduction of negative affect in the low and high groups, indicating negative well-being effects (contrary to our prediction but aligning with [Kato, 2015](#)). [Carver et al. \(1989\)](#) discussed avoidance as being beneficial only if the stressor and relevant reactions are profitably ignorable. Our results may not be such a case, as the loss and associated distress are already experienced and require addressing. Especially, those in the high group reported stronger negative effects. Prior studies on CORFing (as a type of avoidance behavior) explain that those with strong psychological connections with the team are incapable of ignoring or cutting off the loss/distress, resulting in mental burdens (e.g. [Kwon et al., 2008](#)). The finding demonstrates that not all strategies are necessarily helpful, and alleviating emotional distress seems essential for positive coping outcomes. Further investigation on effective coping conditions (e.g. ignorable distress, interaction among strategies, strategy availability) is warranted.

Practical implications

Effectively facilitating the post-loss coping process is important to sport organizations, for delivering a more positive or less negative sport experience that leads to improved sport consumer well-being/satisfaction and consequently to long-term consumer relations. For this, sport managers should strategically target and encourage coping strategies that are effective in dealing with loss-caused emotional distress within the context; in this case, expressive support-seeking strategies. Emotional support can be facilitated through platforms (e.g. fan communities, social media) where supporters can interact, sympathize with each other and seek reassurance of their ego/identity as a supporter ([Reysen and Branscombe, 2010](#)); teams can collaborate with leaders/influencers in such platforms to promote and moderate emotionally supportive/expressive conversations. Teams partnering with expert services (e.g. counseling, meditation) can aid supporters in processing their emotions (e.g. UMA Health provided free therapy sessions for Mets fans). For emotional venting, teams can offer a space for discharging emotional frustration (e.g. rage room for Flyers' fans), which can help supporters vent in a safe and healthy way without disrupting others' experience.

Priming supporters to think more about positive (e.g. growth, hope, good effort) rather than negative (e.g. errors, missed opportunities) aspects of the game can foster positive thinking, which may supplement venting and reaching emotional recovery ([Bohart, 1980](#); [Niles and Rime, 2012](#)). Communication/PR managers or coaches/players can curate post-loss messages to prompt positive thinking such as "You either win or you learn" (after Philadelphia Eagle's 2023 Super Bowl loss). Marketing managers can run activities to stimulate positive thinking (e.g. Super Bowl Bingo for frustrated Eagle's fans that drives attention to aspects such as ## team loses to bring justice and the Philly special mentioned). In these efforts, managers should refrain from avoidance strategies, as the strategy is found to impede negative affect reduction in this case. As those with low self-efficacy tend to employ avoidance more often ([Duhachek, 2005](#)), team-offered education about effective coping options (e.g. mental health campaigns) can discourage avoidant behavior.

Sport teams/managers can diversify strategies to assist effective coping per psychological importance. In this case, emotional support can be targeted in the low group as a coping strategy with positive effects. While unfulfilled achievement prompts emotional support in this group, social unfulfillment deters, hinting un-(or counter-)productive coping process. Such deterrence can be prevented by efforts to better satisfy social needs (e.g. coach/players appreciate fan support, commentators commend camaraderie) accompanied by promoting the strategy as a viable coping option. For the high group, emotional venting can be prioritized; communication efforts to direct supporters' attention to venting opportunities/spaces/channels are suggested.

Based on losing circumstances (e.g. upset, expected loss, good fight), sport managers can anticipate what types of needs are unfulfilled and assist supporters to (un-)adopt coping strategies that are (not) helpful for dealing with the particular need unfulfilled. For example, when unfulfilled arousal is expected (e.g. lackluster game, blowout loss), avoidance can be triggered in this case; managers should develop integrated marketing communication to discourage avoidance (discussed earlier) and encourage other strategies (e.g. emotional support, positive thinking).

Limitations and future directions

The Super Bowl was chosen as our context. Inherent limitations lie in generalizability due to the unique aspects of the event (e.g. many supporters are distantly located and tend to watch in groups, added entertainment value from halftime show). In addition, it is worth noting that the event took place pre-pandemic, and the loss was somewhat expected and lackluster. Caution is needed when implementing findings to other contexts. While the uniqueness of our context may have affected specific patterns of coping selection/effectiveness, meaningful findings (e.g. complexity of coping process, need unfulfillments as antecedents, psychological importance as a boundary condition) are expected to be generally observable. Further examinations and comparisons with other contexts (e.g. NCAA football, MLB, NBA) are required to better ensure the generalizability of findings. Investigation of potential influential factors (e.g. age, culture, personality) can help distinguish generalizable vs. condition-specific coping behaviors. Particularly, game quality (e.g. upset vs. expected loss, close vs. lopsided game) requires attention for shaping (expectations for) need fulfillment, affective game experiences and thereby coping burdens in distinctive ways. Gender-based assessment will also be interesting, as women are known to be more likely to perceive stronger levels of stress, adopt strategies related to verbal expression and find social support effective (O'Rourke *et al.*, 2022; Tamres *et al.*, 2002).

This study examines the process of coping occurring between a loss and the next day (more specifically, 12–24 h after the loss). The timeframe is when a loss is confirmed and associated reactions are most apparent and actively dealt with (Dolton and MacKerron, 2018). However, limitations exist from its meaningful but rather short-term focus, calling for longitudinal studies testing spillover effects (e.g. distress/coping days after loss, accumulation of distress over a season). Further investigation on coping duration and influential factors is suggested (e.g. elders tend to show lesser affective reactivity and more avoidance; Charles *et al.*, 2009).

Several propositions were made in the interpretation of findings that warrant verification. In explaining unfulfilled arousal's insignificant link to emotional venting, it was suggested that valence of affect is independent (i.e. lack of positive affect does not necessarily lead to an increase in negative affect; Watson *et al.*, 1988). Future studies examining the independence of loss-caused positive and negative affect are necessary to validate the premise. Interaction effects among coping strategies were assumed (Bohart, 1980; Nils and Rimé, 2012) when discussing the insignificant well-being effects of positive thinking. Experimental studies testing how combinations of strategies shape coping effectiveness can confirm the exploratory finding. Regarding avoidance strategy, investigating conditions that make emotional distress profitably ignorable (Carver *et al.*, 1989) can be a worthwhile avenue to inform productive coping. In the current study, psychological importance was found to shape the (un-)productivity of avoidance. With the construct primarily based on stress studies and limited to two-level testing, further assessment of constructs more established in sport management (e.g. loyalty) and fan typologies with more sophisticated categorization (e.g. awareness-attachment-attachment-allegiance; Funk and James, 2001) can advance sport-specific knowledge on productive coping. Testing interactions among diverse avoidant strategy-types (e.g. CORFing, denial, distraction) and fan-types (e.g. diehard vs. fair-weather) can avail insights based on different foci of ignorance/avoidance (e.g. emotional connection with team, loss, game) and strategies' productivity/availability.

References

- Apostolopoulou, A., Clark, J. and Gladden, J.M. (2006), "From H-town to Mo-town: the importance of super bowl entertainment", *Sport Marketing Quarterly*, Vol. 15 No. 4, pp. 223-231, doi: [10.1177/106169340601500405](https://doi.org/10.1177/106169340601500405).
- Baumeister, R.F. and Leary, M.R. (1995), "The need to belong: desire for interpersonal attachments as fundamental human motivation", *Psychological Bulletin*, Vol. 117 No. 3, pp. 497-529, doi: [10.1037/0033-2909.117.3.497](https://doi.org/10.1037/0033-2909.117.3.497).
- Biggs, A., Brough, P. and Drummond, S. (2017), "Lazarus and Folkman's psychological stress and coping theory", in Cooper, C.L. and Quick, J.C. (Eds), *The Handbook of Stress and Health*, John Wiley and Sons, pp. 349-364.
- Bohart, A.C. (1980), "Toward a cognitive theory of catharsis", *Psychotherapy Theory Research and Practice*, Vol. 17 No. 2, pp. 192-201, doi: [10.1037/h0085911](https://doi.org/10.1037/h0085911).
- Bushman, B.J., Baumeister, R.F. and Phillips, C.M. (2001), "Do people aggress to improve their mood? Catharsis beliefs, affect regulation opportunity, and aggressive responding", *Journal of Personality and Social Psychology*, Vol. 81 No. 1, pp. 17-32, doi: [10.1037/0022-3514.81.1.17](https://doi.org/10.1037/0022-3514.81.1.17).
- Card, D. and Dahl, G.B. (2011), "Family violence and football: the effect of unexpected emotional cues on violent behavior", *Quarterly Journal of Economics*, Vol. 126 No. 1, pp. 103-143, doi: [10.1093/qje/qjr001](https://doi.org/10.1093/qje/qjr001).
- Carvalho, M.P.M.D. and Vale-Dias, M.D.L.B.R. (2013), "Roads to positive self-development: styles of coping that predict well-being", *International Journal of Developmental and Educational Psychology*, Vol. 1 No. 2, pp. 383-392.
- Carver, C.S., Scheier, M.F. and Weintraub, J.K. (1989), "Assessing coping strategies: a theoretically based approach", *Journal of Personality and Social Psychology*, Vol. 56 No. 2, pp. 267-283, doi: [10.1037/0022-3514.56.2.267](https://doi.org/10.1037/0022-3514.56.2.267).
- Castro, J.F., Ferrer, I., Edo, S. and Rovira, T. (2022), "How primary and secondary appraisals of daily stressful events influence negative and positive affect", *Annals of Psychology*, Vol. 38 No. 3, pp. 538-545.
- Charles, S.T., Piazza, J.R., Luong, G. and Almeida, D.M. (2009), "Now you see it, now you don't: age differences in affective reactivity to social tensions", *Psychology and Aging*, Vol. 24 No. 3, pp. 645-653, doi: [10.1037/a0016673](https://doi.org/10.1037/a0016673).
- Delia, E.B. (2017), "sadness: coping with fan identity threat", *Sport Management Review*, Vol. 20 No. 4, pp. 408-421, doi: [10.1016/j.smr.2016.11.007](https://doi.org/10.1016/j.smr.2016.11.007).
- Diener, E., Lucas, R.E. and Oishi, S. (2002), "Subjective well-being", in Snyder, C.R. and Lopez, S.J. (Eds), *Handbook of Positive Psychology*, Oxford University, New York, pp. 63-73.
- Dolton, P. and MacKerron, G. (2018), "Is football a matter of life and death – or is it more important than that?", in *NIESR Discussion Paper No. 493*, National Institute of Economic and Social Research, London, available at: <https://www.niesr.ac.uk/wp-content/uploads/2021/10/DP493-4.pdf>
- Doyle, J.P., Lock, D., Funk, D.C., Filo, K. and McDonald, H. (2017), "I was there from the start: the identity-maintenance strategies used by fans to combat the threat of losing", *Sport Management Review*, Vol. 20 No. 2, pp. 184-197, doi: [10.1016/j.smr.2016.04.006](https://doi.org/10.1016/j.smr.2016.04.006).
- Duhachek, A. (2005), "Coping: a multidimensional, hierarchical framework of responses to stressful consumption episodes", *Journal of Consumer Research*, Vol. 32 No. 1, pp. 41-53, doi: [10.1086/426612](https://doi.org/10.1086/426612).
- Dwyer, B., Slavich, M.A. and Gellock, J.L. (2018), "A fan's search for meaning: testing the dimensionality of sport fan superstition", *Sport Management Review*, Vol. 21 No. 5, pp. 533-548, doi: [10.1016/j.smr.2017.12.001](https://doi.org/10.1016/j.smr.2017.12.001).
- Elliott, E.S. and Dweck, C.S. (1988), "Goals: an approach to motivation and achievement", *Journal of Personality and Social Psychology*, Vol. 54 No. 1, pp. 5-12, doi: [10.1037/0022-3514.54.1.5](https://doi.org/10.1037/0022-3514.54.1.5).
- Folkman, S. and Moskowitz, J.T. (2004), "Coping: pitfalls and promise", *Annual Review of Psychology*, Vol. 55 No. 1, pp. 745-774, doi: [10.1146/annurev.psych.55.090902.141456](https://doi.org/10.1146/annurev.psych.55.090902.141456).

- Fornell, C. and Larcker, D. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 3, pp. 39-50, doi: [10.2307/3151312](https://doi.org/10.2307/3151312).
- Funk, D.C. and James, J. (2001), "The psychological continuum model: a conceptual framework for understanding an individual's psychological connection to sport", *Sport Management Review*, Vol. 4 No. 2, pp. 119-150, doi: [10.1016/s1441-3523\(01\)70072-1](https://doi.org/10.1016/s1441-3523(01)70072-1).
- Gkorezis, P., Bellou, V., Xanthopoulou, D., Bakker, A.B. and Tsiftsis, A. (2016), "Linking football team performance to fans' work engagement and job performance: test of a spillover model", *Journal of Occupational and Organizational Psychology*, Vol. 89 No. 4, pp. 791-812, doi: [10.1111/joop.12155](https://doi.org/10.1111/joop.12155).
- Harmon, H. (1976), *Modern Factor Analysis*, University of Chicago Press, Chicago, IL.
- Hobfoll, S.E. and Wells, J.D. (1998), "Conservation of resources, stress, and aging", in Lomranz, J. (Ed.), *Handbook of Aging and Mental Health*, Springer US, NY, pp. 121-134.
- Howard, J.L., Slemm, G.R. and Wang, X. (2025), "Need support and need thwarting: a meta-analysis of autonomy, competence, and relatedness supportive and thwarting behaviors in student populations", *Personality and Social Psychology Bulletin*, Vol. 51 No. 9, pp. 1552-1573, doi: [10.1177/01461672231225364](https://doi.org/10.1177/01461672231225364).
- IPG Media (2014), "Annual survey of the American Football consumer", available at: https://www.ipglab.com/wp-content/uploads/2015/09/American_Football_Consumer-IPG-version-8.24.pdf
- Jensen, J.A., Evans, J.O. and Turner, B.A. (2023), "The influence of expectancies on sport consumer behaviour: from BIRGing to COFFing", *International Journal of Sport Management and Marketing*, Vol. 23 Nos 1-2, pp. 80-98, doi: [10.1504/ijsmm.2023.10055630](https://doi.org/10.1504/ijsmm.2023.10055630).
- Jones, M.V., Coffee, P., Sheffield, D., Yangüez, M. and Barker, J.B. (2012), "Just a game? Changes in English and Spanish soccer fans' emotions in the 2010 World Cup", *Psychology of Sport and Exercise*, Vol. 13 No. 2, pp. 162-169, doi: [10.1016/j.psychsport.2011.10.008](https://doi.org/10.1016/j.psychsport.2011.10.008).
- Kato, T. (2015), "Frequently used coping scale: meta-analysis", *Stress and Health*, Vol. 31 No. 4, pp. 315-323, doi: [10.1002/smi.2557](https://doi.org/10.1002/smi.2557).
- Kerr, J.H., Wilson, G.V., Nakamura, I. and Sudo, Y. (2005), "Emotional dynamics of soccer fans at winning and losing games", *Personality and Individual Differences*, Vol. 38 No. 8, pp. 1855-1866, doi: [10.1016/j.paid.2004.10.002](https://doi.org/10.1016/j.paid.2004.10.002).
- Keyes, C.L.M. (1998), "Social well-being", *Social Psychology Quarterly*, Vol. 61 No. 2, pp. 121-140, doi: [10.2307/2787065](https://doi.org/10.2307/2787065).
- Kim, J. and James, J.D. (2019), "Sport and happiness: understanding the relations among sport consumption activities, long-and short-term subjective well-being, and psychological need fulfillment", *Journal of Sport Management*, Vol. 33 No. 2, pp. 119-132, doi: [10.1123/jsm.2018-0071](https://doi.org/10.1123/jsm.2018-0071).
- Kim, J. and Kim, Y. (2023), "Coping with losses: need unfulfillment, coping strategies and temporal well-being of sport fans", *Sport Management Review*, Vol. 26 No. 5, pp. 720-743, doi: [10.1080/14413523.2023.2210360](https://doi.org/10.1080/14413523.2023.2210360).
- Kim, J., Kim, Y.K. and Kim, D.H. (2017), "Improving well-being through hedonic, eudaimonic, and social needs fulfillment in sport media consumption", *Sport Management Review*, Vol. 20 No. 3, pp. 309-321, doi: [10.1016/j.smr.2016.10.001](https://doi.org/10.1016/j.smr.2016.10.001).
- Ko, Y.J., Chang, Y., Jang, W., Sagas, M. and Spengler, J.O. (2017), "A hierarchical approach for predicting sport consumption behavior: a personality and needs perspective", *Journal of Sport Management*, Vol. 31 No. 3, pp. 213-228, doi: [10.1123/jsm.2015-0142](https://doi.org/10.1123/jsm.2015-0142).
- Kwon, H.H., Trail, G.T. and Lee, D.H. (2008), "The effects of vicarious achievement and team identification on BIRGing and CORFing", *Sport Marketing Quarterly*, Vol. 17 No. 4, pp. 209-217, doi: [10.1177/106169340801700404](https://doi.org/10.1177/106169340801700404).
- Lazarus, R.S. and Folkman, S. (1984), *Stress, Appraisal, and Coping*, Springer publishing company.

- Lin, J.H.T. (2017), "Fear in virtual reality (VR): fear elements, coping reactions, immediate and next-day fright responses toward a survival horror zombie virtual reality game", *Computers in Human Behavior*, Vol. 72, pp. 350-361, doi: [10.1016/j.chb.2017.02.057](https://doi.org/10.1016/j.chb.2017.02.057).
- Little, R.J. (1988), "A test of missing completely at random for multivariate data with missing values", *Journal of the American Statistical Association*, Vol. 83 No. 404, pp. 1198-1202, doi: [10.1080/01621459.1988.10478722](https://doi.org/10.1080/01621459.1988.10478722).
- Lock, D. and Heere, B. (2017), "Identity crisis: a theoretical analysis of team identification research", *European Sport Management Quarterly*, Vol. 17 No. 4, pp. 413-435, doi: [10.1080/16184742.2017.1306872](https://doi.org/10.1080/16184742.2017.1306872).
- Madrigal, R. and Chen, J. (2008), "Moderating and mediating effects of team identification in regard to causal attributions and summary judgments following a game outcome", *Journal of Sport Management*, Vol. 22 No. 6, pp. 717-733, doi: [10.1123/jsm.22.6.717](https://doi.org/10.1123/jsm.22.6.717).
- Mardia, K.V. (1985), "Mardia's test of multinormality", in Kotz, S. and Johnson, N.L. (Eds), *Encyclopedia of Statistical Sciences*, Wiley, Vol. 5, pp. 217-221, doi: [10.1002/0471667196.ess1534](https://doi.org/10.1002/0471667196.ess1534).
- Newman, D.B., Tay, L. and Diener, E. (2014), "Leisure and subjective well-being: a model of psychological mechanisms as mediating factors", *Journal of Happiness Studies*, Vol. 15 No. 3, pp. 555-578, doi: [10.1007/s10902-013-9435-x](https://doi.org/10.1007/s10902-013-9435-x).
- Nielsen (2014), "Year in sports media report", available at: <https://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2014%20Reports/year-in-sports-media-report-2013.pdf>
- Nils, F. and Rimé, B. (2012), "Beyond the myth of venting: social sharing modes determine the benefits of emotional disclosure", *European Journal of Social Psychology*, Vol. 42 No. 6, pp. 672-681, doi: [10.1002/ejsp.1880](https://doi.org/10.1002/ejsp.1880).
- Oshimi, D., Harada, M. and Fukuhara, T. (2014), "Spectators' emotions during live sporting events: analysis of spectators after the loss of the supported team at the 2013 FIFA Confederations Cup", *Football Science*, Vol. 11, pp. 48-58.
- O'Rourke, T., Vogel, C., John, D., Pryss, R., Schobel, J., Haug, F., Pieh, C., Nater, U.M., Feneberg, A.C., Reichert, M. and Probst, T. (2022), "The impact of coping styles and gender on situational coping: an ecological momentary assessment study with the mHealth application TrackYourStress", *Frontiers in Psychology*, Vol. 13, 913125, doi: [10.3389/fpsyg.2022.913125](https://doi.org/10.3389/fpsyg.2022.913125).
- Park, C.L. and Folkman, S. (1997), "Meaning in the context of stress and coping", *Review of General Psychology*, Vol. 1 No. 2, pp. 115-144, doi: [10.1037/1089-2680.1.2.115](https://doi.org/10.1037/1089-2680.1.2.115).
- Payne, R. (1970), "Factor analysis of a Maslow-type need satisfaction questionnaire", *Personnel Psychology*, Vol. 23 No. 2, pp. 251-268, doi: [10.1111/j.1744-6570.1970.tb01654.x](https://doi.org/10.1111/j.1744-6570.1970.tb01654.x).
- Pearsall, J.M., Wann, D.L., Brown, X. and Cushen, P. (2025), "Sport fandom and post-event memories: an examination of negative and positive rumination in sport fans", *Journal of Sport Behavior*, Vol. 48 No. 2, pp. 43-53.
- Podsakoff, P.M., MacKenzie, S.B. and Podsakoff, N.P. (2012), "Sources of method bias in social science research and recommendations on how to control it", *Annual Review of Psychology*, Vol. 63 No. 1, pp. 539-569, doi: [10.1146/annurev-psych-120710-100452](https://doi.org/10.1146/annurev-psych-120710-100452).
- Putnick, D.L. and Bornstein, M.H. (2016), "Measurement invariance conventions and reporting: the state of the art and future directions for psychological research", *Developmental Review*, Vol. 41, pp. 71-90, doi: [10.1016/j.dr.2016.06.004](https://doi.org/10.1016/j.dr.2016.06.004).
- Quantumrun (2025), "NFL statistics and demographics 2026", available at: <https://www.quantumrun.com/consulting/nfl-demographics/>
- Reysen, S. and Branscombe, N.R. (2010), "Fanship and fandom: comparisons between sport and non-sport fans", *Journal of Sport Behavior*, Vol. 33 No. 2, pp. 176-193.
- Ryan, R.M. and Deci, E.L. (2001), "On happiness and human potentials: a review of research on hedonic and eudaimonic well-being", *Annual Review of Psychology*, Vol. 52 No. 1, pp. 141-166, doi: [10.1146/annurev.psych.52.1.141](https://doi.org/10.1146/annurev.psych.52.1.141).

- Satorra, A. and Bentler, P.M. (2001), "A scaled difference chi-square statistics for moment structure analysis", *Psychometrika*, Vol. 66 No. 4, pp. 507-514, doi: [10.1007/bf02296192](https://doi.org/10.1007/bf02296192).
- Sloan, L.R. (1989), "The motives of sports fans", in Goldstein, J.H. (Ed.), *Sports, Games, and Play: Social and Psychological Viewpoints*, Lawrence Erlbaum Associates, NJ, pp. 175-240.
- Sonnentag, S. and Fritz, C. (2007), "The recovery experience questionnaire: development and validation of a measure for assessing recuperation and unwinding from work", *Journal of Occupational Health Psychology*, Vol. 12 No. 3, pp. 204-221, doi: [10.1037/1076-8998.12.3.204](https://doi.org/10.1037/1076-8998.12.3.204).
- Tamres, L.K., Janicki, D. and Helgeson, V.S. (2002), "Sex differences in coping behavior: a meta-analytic review and an examination of relative coping", *Personality and Social Psychology Review*, Vol. 6 No. 1, pp. 2-30, doi: [10.1207/s15327957pspr0601_1](https://doi.org/10.1207/s15327957pspr0601_1).
- Trail, G.T., Kim, Y.K., Kwon, H.H., Harrolle, M.G., Braunstein-Minkove, J.R. and Dick, R. (2012), "The effects of vicarious achievement on BIRGing and CORFing: testing moderating and mediating effects of team identification", *Sport Management Review*, Vol. 15 No. 3, pp. 345-354, doi: [10.1016/j.smr.2011.11.002](https://doi.org/10.1016/j.smr.2011.11.002).
- Trail, G., Lee, D., Triantafyllidis, S., Braunstein-Minkove, J.R., Kim, A., Sweeney, K., ... and Alfaro-Barrantes, P. (2023), "Are single-item needs' and values' measures a good alternative to multi-item measures for sport marketers?", *International Journal of Sport Marketing and Sponsorship*, Vol. 24 No. 1, pp. 168-185.
- Wang, T.R., Min, S.D. and Kim, S.K. (2013), "Fulfillment of sport spectator motives: the mediation effect of well-being", *Social Behavior and Personality*, Vol. 41 No. 9, pp. 1421-1433, doi: [10.2224/sbp.2013.41.9.1421](https://doi.org/10.2224/sbp.2013.41.9.1421).
- Wann, D.L. (2006), "Understanding the positive social psychological benefits of sport team identification: the team identification-social psychological health model", *Group Dynamics: Theory, Research, and Practice*, Vol. 10 No. 4, pp. 272-296, doi: [10.1037/1089-2699.10.4.272](https://doi.org/10.1037/1089-2699.10.4.272).
- Wann, D.L. and Branscombe, N.R. (1990), "Die-hard and fair-weather fans: effects of identification on BIRGing and CORFing", *Journal of Sport and Social Issues*, Vol. 14 No. 2, pp. 103-117, doi: [10.1177/019372359001400203](https://doi.org/10.1177/019372359001400203).
- Wann, D.L., Melnick, M.J., Russell, G.W. and Pease, D.G. (2001), *Sport Fans: The Psychology and Social Impact of Spectators*, Routledge, New York, NY.
- Watson, D., Clark, L.A. and Tellegen, A. (1988), "Development and validation of brief measures of positive and negative affect: the PANAS scales", *Journal of Personality and Social Psychology*, Vol. 54 No. 6, pp. 1063-1070, doi: [10.1037/0022-3514.54.6.1063](https://doi.org/10.1037/0022-3514.54.6.1063).

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